

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: I

Course: Genetics & Infectious Diseases

Name of the faculty: Dr. D. Satheesh

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	Basic principles of heredity: Mendel's laws- monohybrid cross and hybrid cross Complete and Incomplete Dominance Penetrance and expressivity Genetic Sex-Determining Systems, Environmental Sex Determination, Sex Determination and mechanism in <i>Drosophilamelanogaster</i> . Sex-linked characteristics in humans and dosage compensation 6.Extensions of Mendelism, Genes and Environment Extensions of Mendelism: Multiple Alleles	October -22	5	5	Black board chalk and talk & PPT
2.	Gene Interaction. The Interaction Between Sex and Heredity: Sex-Influenced and Sex-Limited Characteristics : Cytoplasmic Inheritance, Genetic Maternal Effects: Interaction between Genes and Environment: Environmental Effects on Gene Expression, Inheritance of Continuous Characteristics: Chapter 7. Human Chromosomes and Patterns of Inheritance Patterns of inheritance: autosomal dominance, autosomal recessive, X- linked recessive, X-linked dominant. Chromosomal anomalies Structural and numerical aberrations with examples. Human karyotyping and Pedigree analysis. Chapter 8. Infectious Diseases Introduction to pathogenic organisms: viruses, bacteria, fungi, protozoa and worms.	November- 22	10	10	Black board chalk and talk PPT
3.	Structure, life cycle, pathogenicity, including diseases, causes, symptoms and control of common parasites: <i>Trypanosoma, Giardia and Wuchereria</i>	December -22	3	3	Black board chalk and talk and PPT


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.


PRINCIPAL
Smt. ASM College
For Women, BALLARI.



V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN


Academic Year: 2022-23

Semesters: V

Course: Genetics

Name of the faculty: Dr. D. Satheesh

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology, Interaction of genes: Supplementary factors -9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte. Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 – Coat colour in mouse	October -22	5	5	Black board chalk and talk & PPT
2.	Complementary factors - 9 : 7, flower colour in sweet peas, Multiple factors / polygenic inheritance –Skin Colour in Man. Lethal gene - Coat colour in mice. Multiple Alleles: Characteristics of Multiple Alleles, Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect. Linkage and Crossing over: Linkage:Theories of linkage, Linkage in Drosophila, linkage in man Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern's Experiment on Drosophila), Significance of Crossing over, Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, nandromorphy and intersexes	November- 22	10	10	Black board chalk and talk PPT


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

<p>3. Linkage and Crossing over: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man, Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern's Experiment on Drosophila}, Significance of Crossing over Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, gynandromorphy and intersexes Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophilia and colour blindness in man. Sex linkage in poultry, Y linked genes Mutations: Chromosomal aberrations- Human Diseases: Klinefelter's Syndrome, Turner's syndrome, Edwards Syndrome, Patau syndrome Chi- du – chart syndrome and Down's syndrome (Mongolism)</p>	December -22	3	3	Black board chalk and talk and PPT
<p>4. Gene mutations – Types of gene mutation and Molecular basis of gene mutations Human genetics and eugenics: Common human genetic disorders Inborn errors of metabolism: Albinism, Phenylketonuria, Alkaptonuria, Sickle cell anemia. Thalassaemia, Huntington's chorea, Eugenics.</p>	January -23	6	6	Black board chalk and talk and PPT



D. Srinivas

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

Rab
PRINCIPAL
Smt. ASM College
For Women, BALLARI.

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: V

Course: Genetics

Name of the faculty: Md. Yunus Basha

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1	Chromosomes: Chromosome number, size chromosomal morphology, and types, structure and models. Heterochromatin and euchromatin. Giant chromosomes-polytene and lampbrush.	October -22	5	5	Black board , chalk and talk method
2	Nucleic Acids, and Protein Biosynthesis: Identification of genetic material — Griffith's experiment Chemistry of nucleic acids, structure of DNA, Watson and crick DNA model, replication of DNA. Forms of DNA, Types of RNA Genetic code, properties of genetic code, wobble hypothesis, mechanism of protein biosynthesis	November-22	9	9	Black board , chalk and talk method
3	Genetic Engineering and Biotechnology: Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence, Cloning Vectors-Plasmids, Gene-Cloning); production on of insulin by rDNA technology PCR DNA finger printing and DNA vaccines..	December -22	8	8	Black board , chalk and talk method
4	Applications of genetic engineering medicine, food technology and agriculture useful effect of biotechnology harmful effect of biotechnology	Jan 2023	7	7	Black board , chalk and talk method

Head of the Department of Zoology
 Smt. A.S.M. College for Women,
 Ballari-583103.

PRINCIPAL
 Smt. ASM College
 For Women, BALLARI.

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: VI

Course: CELL BIOLOGY & DEVELOPMENTAL BIOLOGY

Name of the faculty: Md. Yunus Basha

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1	<p>CELL BIOLOGY: History of cell biology and its branches. Cell Theory Study of light and electron microscope, cell fractionation, ultra structure of animal cell. Cell organelles: Structure and functions of Plasma membrane, Mitochondria, Golgi complex, lysosomes, endoplasmic reticulum, Ribosomes, Nucleus., Centrioles, cytoskeletal elements Cell cycle: Mitosis and meiosis, regulations of cell cycle.</p>	May-22	5	5	Black board , chalk and talk method
2	<p>Biology of cancer: Types of cancer, characteristics of cancer cell, carcinogenic agents (physical, chemical and biological) DEVELOPMENTAL BIOLOGY: Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory. Gammatogenesis: Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis,</p>	June-22	9	9	Black board , chalk and talk method
3	<p>Fertilization: Kinds of fertilization, approach of gametes, fertilization and antifertilization, acrosome reaction – cortical reaction – Amphimixis, monospermic and polyspermic fertilization, significance of fertilization Cleavage: Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples.</p>	July-22	8	8	Black board , chalk and talk method

	<p>Effect of yolk on cleavage.</p> <p>Early development of frog: Structure of ovum, cleavage, blastulation and gastrulation.</p> <p>Early development of chick: Structure of hen's egg, cleavage, blastulation, gastrulation, origin and structure of primitive streak, structure of 24, and 48 hours chick embryos. Extra embryonic membranes</p>				
4	<p>Reproductive system and Early development of human: Menstrual cycle and its regulation. Structure of sperm and ovum, ovulation, cleavage, morula, blastocyst and implantation.</p> <p>Placenta: Morphological and histological classifications of placenta with examples, structure and functions of placenta – yolk sac placenta, allantoic placenta.</p> <p>Modern trends in human reproduction Sperm bank, IVF, cloning, surrogate mother and multiple births – twins.</p>	August-22	7	7	Black board , chalk and talk method



Kaly

PRINCIPAL
Smt. ASM College
For Women, BALLARI.

[Handwritten signature]

[Handwritten signature]

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari, 591003.

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

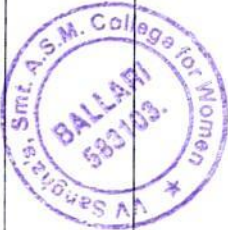
Semesters: II

Course: Biochemistry & Physiology

Name of the faculty: Dr. Syeda K Tanveer

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	<p>Structure and Function of Biomolecules: Structure and Biological importance of carbohydrates (Monosaccharides, Disaccharides, Polysaccharides and Glycoconjugates).</p> <ul style="list-style-type: none"> • Lipids (saturated and unsaturated Fatty acids, Tri-acylglycerols, Phospho lipids, Glycolipids and Steroids) • Structure, Classification and General Properties of a-amino acids; Essential and non-essential amino acids, Levels of organization in proteins; Simple and conjugate proteins. <p>Chapter 2. Enzyme Action and Regulation</p> <ul style="list-style-type: none"> • Nomenclature and classification of enzymes; Cofactors; Specificity of enzyme action. • Isozymes; Mechanism of enzyme action • Enzyme kinetics; Factors affecting rate of enzyme-catalyzed reactions ; Equation of Michaela's -Mendon, Concept of Km and V max, Enzyme inhibition • Allosteric enzymes and their kinetics; Regulation of enzyme action. 	May -23	16	16	Black board chalk and talk & PPT
2.	<p>Metabolism of Carbohydrates and Lipids</p> <ul style="list-style-type: none"> • Metabolism of Carbohydrates: glycolysis, citric acid cycle, gluconeogenesis, phosphate pentose pathway Glycogenolysis and Glycogenesis Lipids- Biosynthesis of palmitic acid; Ketogenesis, • β-oxidation and omega -oxidation of saturated fatty acids with even and odd number of carbon atoms <p>Metabolism of Proteins and Nucleotides</p> <ul style="list-style-type: none"> • Catabolism of amino acids: Transamination, Deamination, Urea cycle, Nucleotides and vitamins Peptide linkages 	June -23	20	20	Black board chalk and talk PPT

Approved by the Head of Department
Dr. M. R. S. Reddy
2022-23

<p>3. Digestion and Respiration in humans</p> <ul style="list-style-type: none"> • Structural organization and functions of gastrointestinal tract and associated glands. • Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins; Physiology of trachea and Lung. • Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities; Transport of oxygen and carbon dioxide in blood, Respiratory pigments, Dissociation curves and the factors influencing it; • Control of respiration <p>Circulation and Excretion in humans</p> <ul style="list-style-type: none"> • Components of blood and their functions; hemopoiesis • Blood clotting: Blood clotting system, Blood groups: Rh-factor, ABO and MN • Structure of mammalian heart • Cardiac cycle; Cardiac output and its regulation, Electrocardiogram, Blood pressure and its regulation • Structure of kidney and its functional unit; Mechanism of urine formation 	 July -23	16	16	Black board chalk and talk and PPT
<p>4. Nervous System and Endocrinology in humans</p> <ul style="list-style-type: none"> • Structure of neuron, resting membrane potential(RMP) • Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers. Types of synapse • Endocrine glands - pineal, pituitary, thyroid, parathyroid, pancreas and adrenal; hormones secreted by them. • Classification of hormones; Mechanism of Hormone action <p>Muscular System in humans</p> <ul style="list-style-type: none"> • Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle twitch; Motor unit, summation and tetanus 	August-23	10	10	Black board chalk and talk and PPT

Lamer


 Head of the Department of Zoology
 Smt. A.S.M. College for Women,
 Ballari-583103.


 PRINCIPAL
 Smt. ASM College
 For Women, BALLARI.

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: III

Course: Molecular biology, Bioinstrumentation & Techniques in Biology

Name of the faculty: Dr. Syeda K Tanveer

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	Chapter 5: Microscopy • Principles and applications of Light microscopy, Dark field microscopy, Phase contrast microscopy Fluorescence microscopy	October -22	5	5	Black board chalk and talk & PPT
2.	Confocal microscopy Electron microscopy (SEM and TEM). Centrifugation: Principles, types, and applications (High speed and Ultracentrifugation Chromatography : Principle and applications of: TLC, HPLC and GC) Chapter 7: Biochemical Instrumentation 6 hrs • Colorimetry	November -22	9	9	Black board chalk and talk PPT
3.	Spectrophotometry: Beer-Lambert's law, Absorption spectrum, UV-VL Spectrophotometer. • pH meter, measurement of pH •, Principle, applications and safety measures of Radio-tracer techniques - Autoradiography Chapter 8: Molecular Techniques • Principle and applications of Agarose gel-electrophoresis,	December - 22	8	8	Black board chalk and talk and PPT
4.	SDS-PAGE, DNA Sequencing • (Sanger's Di deoxy method) , PCR DNA Fingerprinting, ELISA, Southern Blotting and Western Blotting	Jan 2023	8	8	Black board chalk and talk and PPT


PRINCIPAL
Smt. ASM College
For Women, BALLARI.




the Department of Zoology
S.M. College for Women,
Ballari-585103.

.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Course: Animal behavior & evolution

Name of the faculty: Dr. Syeda K Tanveer

Semesters: V

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	UNIT: I Definition and types of animal behavior Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation Learned behavior: Habituation, Imprinting Conditioned reflex and Insight learning Social organization in Honey bees	October -22	5	5	Black board chalk and talk & PPT
2.	Social organization in Termites & Macaques. Unit II : 1.Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla Migration in birds- Methods of studying migration, preparation for migration Types of Bird Migration, Orientation and Navigation. 2. Biological Clock :Introduction, Definition of chronobiology Biological clock, origin of biological clock various types of Rhythms.	November -22	9	9	Black board chalk and talk PPT
3.	Unit III: Parental care in fishes. & amphibians Nesting behavior in birds- types of nests Unit-IV Mimicry: definition, types of mimicry with examples. Coloration- types of coloration Evolution : Lamarckism and neo -lamarckism. Darwin and Wallace theory of natural selection.	December – 22	8	8	Black board chalk and talk and PPT
4.	Sythetic theory of evolution. gene mutation, gene flow , genetic drift, Natural selection and isolation , hardy weinberg law equilibrium. Fossils and Fossilization, Types of Fossils,	Jan 2023	8	8	Black board chalk and talk and PPT

Syeda K Tanveer

D. Sangha
Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

Kab
PRINCIPAL
Smt. ASM College
For Women, BALLARI.

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: III

Course: Molecular biology, Bioinstrumentation & Techniques in Biology

Name of the faculty: Ms. Lakshmi Sowjanya V

Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	Chapter 1: Process of Transcription • Fine structure of gene (Cistron, Recon, Muton) • RNA polymerases - types and functions Transcription in prokaryotes and eukaryotes Chapter 2: Process of Translation • Genetic code and its salient features	October -22	5	5	Black board chalk and talk & PPT
2.	Translation in prokaryotes and eukaryotes Translation in eukaryotes Regulation of gene expression-I Regulation of gene expression in prokaryotes- lac operon (inducible) trp operon (repressible) in E. coli	November - 22	9	9	Black board chalk and talk PPT
3.	Regulation of gene expression in eukaryotes - Role of chromatin (euchromatin and heterochromatin) in gene expression Regulation of gene expression in eukaryotes - Role of chromatin (euchromatin and heterochromatin) in gene expression Post-transcriptional modification: capping, splicing, polyadenylation. Concept of RNA editing (mRNA), gene silencing, and, RNAi	December - 22	8	8	Black board chalk and talk and PPT
4.	Regulation of gene expression-II • Post-translational modifications: purpose, advantages, and significance; glycosylation, methylation, phosphorylation, and acetylation. • Post-translational modifications: purpose, advantages, and significance; glycosylation, methylation, phosphorylation, and acetylation. • Intracellular protein degradation (lysosomal autophagy and ubiquitin proteosome pathway).	Jan 2023	8	8	Black board chalk and talk and PPT

Lakshmi Sowjanya V

Lakshmi Sowjanya V
Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

Lakshmi Sowjanya V
PRINCIPAL
Smt. ASM College
For Women, BALLARI,

V.V. Sangha's
Smt.Allum Sumangallamma Memorial College for Women, Ballari
Department of Zoology
TEACHING PLAN



Academic Year: 2022-23

Semesters: IV

Course: Gene technology, Immunology and Computational Biology

Name of the faculty: Ms. Lakshmi Sowjanya V


Unit No.	Title of the Chapter and Description	Month	No. of Hours allotted	Hours taken	Teaching pedagogy
1.	<p>Chapter 1: Principles of Gene Manipulation Recombinant DNA Technology: Introduction, steps involved. Restriction Enzymes and Ligases and Nucleic acid modifying enzyme. Gene cloning Vector: Concept of plasmids-pBR322, Lamda phage vectors, cosmids Gene transfer techniques (Direct and indirect). Screening and selection of recombinant colonies</p> <p>Chapter 2: Applications of Genetic Engineering Transgenic animals (Transgenic cow, Transgenic Fish); Transgenic plants (cry protein); Gene silencing (Knock out and Knock in mouse). Production of Human Recombinant insulin and Hybridoma technology: Synthesis and applications of Monoclonal antibodies Gene Therapy (SCID) Biosensors and its applications</p>	May -23	16	16	Black board chalk and talk & PPT
2.	<p>Chapter 3: Introduction to the Immune System Defence against diseases: Introduction, First and second line of defence, Innate and acquired immunity; Antigen presenting cells (APC's), Role of B and T-lymphocytes (Humoral immunity and cell mediated immunity), primary and secondary immune response. •Types of Immunity Functional aspects of organs of the Immune system - Thymus and bone marrow, spleen, Lymph Node, Small intestine and Liver (Peyer's patches and Von Kupffer cells).</p>	June -23	20	20	Black board chalk and talk PPT


leh


Head of the Department of Zoology,
Smt. A.S.M. College for Women,
Ballari-583103.

<p>3. Antigens and Antibodies</p> <ul style="list-style-type: none"> Antigens and haptens: Properties (foreignness, molecular size, heterogeneity). B and T cell epitopes. Structure of IgG and functions of different classes of immunoglobulins. Major histocompatibility complex - Structure of MHC I & II. <p>Chapter 5: Clinical Immunology</p> <ul style="list-style-type: none"> Immunity against diseases of viral, bacterial and protozoan infections. Vaccines: Types and Uses - Immunization schedule for children. Transplantation immunology: Transplantation of organ- Types, graft rejection and Immuno-suppressors. 	<p>July -23</p>	<p>16</p>	<p>16</p>	<p>Black board chalk and talk and PPT</p>
<p>4. Chapter 7: Biostatistics I</p> <ul style="list-style-type: none"> Measures of central tendency: Mean, Median, Mode. Data summarizing: Frequency distribution, Graphical presentation - bar diagram, pie diagram, histogram. Elementary idea of probability and its applications. <p>Chapter 8: Biostatistics II</p> <ul style="list-style-type: none"> Measures of dispersion: Range, Standard Deviation, Variance. Correlation and Regression. Tests of significance: F-test, ANOVA, t-test and Chi square test 	<p>August-23</p>	<p>10</p>	<p>10</p>	<p>Black board chalk and talk and PPT</p>

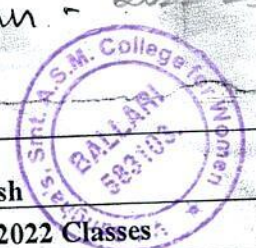



 PRINCIPAL
 Smt. ASM College
 For Women, BALLARI.



 Head of the Department of Zoology
 Smt. A.S.M. College for Women,
 Ballari-583103.

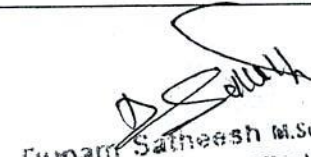
Head of the Department of Zoology
 Smt. A.S.M. College for Women,
 Ballari-583103.

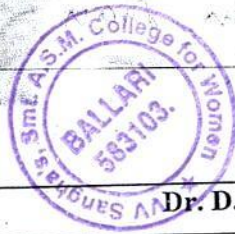
I Semester Lesson Plan - 2022-23



DATE OF REOPENING :10-10-2022			
I Semester Genetics Infectious Diseases Dr. D. Satheesh			
Commencement of Classes :17-08-2022 And End of I sem.17/12/2022 Classes			
Month	Week	Hours	Syllabus to be covered
August 2022	Classes delayed due To admissions to I semester		
Sep 2022	05/09/2022 to 14/09/2022 Classes not engaged due to Practical Exams 4 and 6 Sem.		
	Classes suspended Due to Theory Examination 16/09/2022 to 30/09/2022		
	Holidays 01/10/2022 to 09/10/2022		
October -22	10-10-2022 to 15-10-2022	2	Basic principles of heredity: Mendel's laws- monohybrid cross and hybrid cross Complete and Incomplete Dominance Penetrance and expressivity
	17-10-2022 to 22-10-2022	2	Genetic Sex-Determining Systems, Environmental Sex Determination, Sex Determination and mechanism in <i>Drosophilamelanogaster</i> . Sex-linked characteristics in humans and dosage compensation
	24-10-2022 to 29-10-2022	1	6.Extensions of Mendelism, Genes and Environment Extensions of Mendelism: Multiple Alleles
November -22	31-10-2022 to 05-11-2022	2	, Gene Interaction. The Interaction Between Sex and Heredity: Sex-Influenced and Sex-Limited Characteristics Cytoplasmic Inheritance, Genetic Maternal Effects
	07-11-2022 to 12-11-2022	2	Interaction between Genes and Environment: Environmental Effects on Gene Expression, Inheritance of Continuous Characteristics.:
	14-11-2022 to 19-11-2022	2	Chapter 7. Human Chromosomes and Patterns of Inheritance Patterns of inheritance: autosomal dominance, autosomal recessive, X-linked recessive, X-linked dominant. Chromosomal anomalies
	21-11-2022 to 26-11-2022	2	Structural and numerical aberrations with examples. Human karyotyping and Pedigree analysis.
	28-11-2022 to 3-12-2022	2	Chapter 8. Infectious Diseases Introduction to pathogenic organisms: viruses, bacteria, fungi, protozoa and worms.
December - 22	5-12-2022 to 10-12-2022	2	Structure, life cycle, pathogenicity, including diseases, causes, symptoms and control of common parasites: <i>Trypanosoma, Giardia</i>
	12-12-2022 to 17-12-2022	1	<i>and Wuchereria</i>


Principal
 Smt. ASM College
 For Women, Ballari.


Dr. D. Satheesh M.Sc., M.Phil.
 Asst. Professor of Zoology
 Smt. A.S.M. College, Ballari.



Dr. D. Satheesh Lesson Plan for Year 2022-23

Commencement of Classes : 10-10-2022 and End of V sem. Classes 02/02/2022 24 hrs

V Semester Genetics

October -22	10-10-2022 to 15-10-2022	2	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology,
	17-10-2022 to 22-10-2022	2	Interaction of genes: Supplementary factors -9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte.
	24-10-2022 to 29-10-2022	1	Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 – Coat colour in mouse
November -22	31-10-2022 to 05-11-2022	1	Complementary factors - 9 : 7, flower colour in sweet peas, Multiple factors / polygenic inheritance –Skin Colour in Man. Lethal gene - Coat colour in mice.
	07-11-2022 to 12-11-2022	2	Multiple Alleles: Characteristics of Multiple Alleles; Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect.
	14-11-2022 to 19-11-2022	2	Linkage and Crossing over: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man,
	21-11-2022 to 26-11-2022	2	Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern's Experiment on Drosophila), Significance of Crossing over
	28-11-2022 to 3-12-2022	2	Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, ynamdromorphy and intersexes
December - 22	5-12-2022 to 10-12-2022	2	Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophillia and colour blindness in man. Sex linkage in poultry, Y linked genes
	12-12-2022 to 17-12-2022	2	Mutations: Chromosomal aberrations- Human Diseases: Klinefelter's Syndrome,
	19-12-2022 to 24-12-2022	2	Turner's syndrome, Edwards Syndrome, Patau syndrome
	26-12-2022 to 31-12-2022	2	Chi- du – chart syndrome and Down's syndrome (Mongolism),..
Jan 2023 Feb 2023	02-01-2023 to 07-01-2023	2	Gene mutations – Types of gene mutation and Molecular basis of gene mutations
	09-01-2023 to 14-01-2023	2	Human genetics and eugenics: Common human genetic disorders
	16-01-2023 to 21-01-2023	2	Inborn errors of metabolism: Albinism, Phenylketonuria, Alkaptonuria, Sickle cell anemia.
	23-01-2023 to 02-02-2023		Thalassemia, Huntington's chorea, Eugenics.

[Signature]

Principal
Smt. ASM College
for Women, Ballari.

[Signature]

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.



Lesson Plan

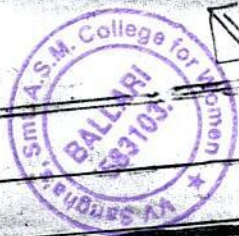
DATE OF REOPENING :04-05-2022			
Commencement of Classes :04-05-2022			
II Semester			Dr. Syeda K Tanveer
Month	Week	Hours	Syllabus to be covered

May 2022	04-05-2022 to 07-05-22	4hrs	Chapter 1. Structure and Function of Biomolecules: Structure and Biological importance of carbohydrates (Monosaccharides, Disaccharides, Polysaccharides and Glycoconjugates). Lipids (saturated and unsaturated Fatty acids, Tri-acylglycerols, Phospho lipids, Glycolipids and Steroids)
	09-05-2022 to 14-05-22	4hrs	Structure, Classification and General Properties of α -amino acids; Essential and non-essential amino acids, Levels of organization in proteins; Simple and conjugate proteins.
	16-05-2022 to 21-05-22	4hrs	Chapter 2. Enzyme Action and Regulation Nomenclature and classification of enzymes; Cofactors; Specificity of enzyme action. Isozymes; Mechanism of enzyme action
	23-05-2022 to 28-05-22	4hrs	Enzyme kinetics; Factors affecting rate of enzyme-catalyzed reactions; Equation of Michaelis-Menton, Concept of K_m and V_{max} .
	30-05-2022 to 04-06-22	4hrs	Enzyme inhibition Allosteric enzymes and their kinetics; Regulation of enzyme action.
June 2022			Chapter 3. Metabolism of Carbohydrates and Lipids Metabolism of Carbohydrates: glycolysis
	06-06-2022 to 11-06-2022	4hrs	Chapter 3. Metabolism of Carbohydrates and Lipids Metabolism of Carbohydrates citric acid cycle, gluconeogenesis, phosphate pentose pathway Glycogenolysis and Glycogenesis
	13-06-2022 to 18-06-2022	4hrs	Lipids- Biosynthesis of palmitic acid; Ketogenesis, β -oxidation and ω -oxidation of saturated fatty acids with even and odd number of carbon atoms
	20-06-2022 to 25-06-2022	4hrs	Chapter 4. Metabolism of Proteins and Nucleotides Catabolism of amino acids: Transamination, Deamination, Urea cycle, Nucleotides and vitamins. Peptide linkages.
	27-06-2022 to 02-07-2022	4hrs	Chapter 5. Digestion and Respiration in humans

Tanveer

Head of the Department of Zoology
 Smt. A.S.M. College for Women

1X5=03
5x32=15
20



Bafna Gold
Date: _____ Page: _____

July 2022			Structural organization and functions of gastrointestinal tract and associated glands. Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins;
	04-07-2022 to 09-07-2022	4hrs	Physiology of trachea and Lung. Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities;
	11-07-2022 to 16-07-2022	4hrs	Transport of oxygen and carbon dioxide in blood, Respiratory pigments, Dissociation curves and the factors influencing it; Control of respiration
	18-07-2022 to 23-07-2022	4hrs	Chapter 6. Circulation and Excretion in humans Components of blood and their functions; hemopoiesis Blood clotting: Blood clotting system, Blood groups: Rh-factor, ABO and MN
	25-07-2022 to 30-07-2022	4hrs	Structure of mammalian heart Cardiac cycle; Cardiac output and its regulation, Electrocardiogram, Blood pressure and its regulation Structure of kidney and its functional unit; Mechanism of urine formation
August 2022	01-08-2022 to 06-08-2022	4hrs	Unit IV Chapter 7. Nervous System and Endocrinology in humans Structure of neuron, resting-membrane potential(RMP) Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers. Types of synapse
	08-08-2022 to 13-08-2022	3Hrs	Endocrine glands - pineal, pituitary, thyroid, parathyroid, pancreas and adrenal; hormones secreted by them. Classification of hormones; Mechanism of Hormone action
	16-08-2022 to 19-08-2022	3Hrs	Chapter 8. Muscular System in humans Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle twitch; Motor unit, summation and tetanus

James

[Signature]

[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103

PRINCIPAL
Smt. A.S.M. College for Women
BALLARI-583103

* Lesson plan
B.Sc I Semester



Dr. Syeda K Tanveer Fathima Lesson Plan for Year 2022-23			
Commencement of Classes : 10-10-2022 and End of V sem. Classes 02/02/2022 24 hrs			
V Semester Animal behavior and evolution			
October -22	10-10-2022 to 15-10-2022	2	UNIT: I Definition and types of animal behavior Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation
	17-10-2022 to 22-10-2022	2	Learned behavior: Habituation, Imprinting Conditioned reflex and Insight learning
	24-10-2022 to 29-10-2022	1	Social organization in Honey bees
November -22	31-10-2022 to 05-11-2022	1	Social organization in Termites & Macaques.
	07-11-2022 to 12-11-2022	2	Unit II : 1. Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla
	14-11-2022 to 19-11-2022	2	Migration in birds- Methods of studying migration, preparation for migration
	21-11-2022 to 26-11-2022	2	Types of Bird Migration, Orientation and Navigation.
	28-11-2022 to 3-12-2022	2	2. Biological Clock :Introduction, Definition of chronobiology Biological clock, origin of biological clock various types of Rhythms.
December - 22	5-12-2022 to 10-12-2022	2	Unit III: Parental care in fishes. & amphibians
	12-12-2022 to 17-12-2022	2	Nesting behavior in birds- types of nests.
	19-12-2022 to 24-12-2022	2	Unit-IV Mimicry: definition, types of mimicry with examples. Coloration- types of coloration
	26-12-2022 to 31-12-2022	2	Evolution : Lamarckism and neo -lamarckism. Darwin and Wallace theory of natural selection.
Jan 2023	02-01-2023 to 07-01-2023	2	Sythetic theory of evolution. gene mutation, gene flow , genetic drift,
	09-01-2023 to 14-01-2023	2	Natural selection and isolation , hardy weinberg law equilibrium.
	16-01-2023 to 21-01-2023	2	Fossils and Fossilization, Types of Fossils,
	23-01-2023 to 02-02-2023		Significance of fossils. Origin and evolution of man.

(Signature)

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Bailari-583103.

(Signature)
Assistant Professor
Department of Zoology,
Smt. A.S.M. College for Women, Bailari

* Syllabus & B.Sc [III, V sem



Dr. Syeda K Tanveer Fathima Lesson Plan for Year 2022-23			
Commencement of Classes : 10-10-2022 and End of III sem. Classes 02/02/2022 24 hrs			
III Semester Molecular Biology Bioinstrumentation & Techniques in Biology			
October -22	10-10-2022 to 15-10-2022	2	Chapter 5: Microscopy • Principles and applications of Light microscopy,
	17-10-2022 to 22-10-2022	2	Dark field microscopy, Phase contrast microscopy
	24-10-2022 to 29-10-2022	1	Fluorescence microscopy
November -22	31-10-2022 to 05-11-2022	1	Confocal microscopy
	07-11-2022 to 12-11-2022	2	Electron microscopy (SEM and TEM).
	14-11-2022 to 19-11-2022	2	Centrifugation: Principles, types, and applications (High speed and Ultracentrifugation)
	21-11-2022 to 26-11-2022	2	Chromatography : Principle and applications of: TLC, HPLC and GC
	28-11-2022 to 3-12-2022	2	Chapter 7: Biochemical Instrumentation 6 hrs • Colorimetry
December - 22	5-12-2022 to 10-12-2022	2	Spectrophotometry: Beer-Lambert's law, Absorption spectrum,
	12-12-2022 to 17-12-2022	2	UV-VL Spectrophotometer. • pH meter, measurement of pH •.,
	19-12-2022 to 24-12-2022	2	Principle, applications and safety measures of Radio-tracer techniques - Autoradiography
	26-12-2022 to 31-12-2022	2	Chapter 8: Molecular Techniques • Principle and applications of Agarose gel-electrophoresis,
Jan 2023	02-01-2023 to 07-01-2023	2	SDS-PAGE, DNA Sequencing • (Sanger's Di deoxy method) , PCR
	09-01-2023 to 14-01-2023	2	DNA Fingerprinting, ELISA,
	16-01-2023 to 21-01-2023	2	Southern Blotting and Western Blotting
	23-01-2023 to 02-02-2023	2	Revision

Janna

Dr. Syeda K Tanveer Fathima

Head of the Department of Zoology



[NEP-2020]
 B.Sc II Semester [Zoology]
 LESSON PLAN [2022 - 2023]

Month	Hours	Syllabus to be covered
May -23	16	Chapter 1. Structure and Function of Biomolecules: <ul style="list-style-type: none"> • Structure and Biological importance of carbohydrates (Monosaccharides, Disaccharides, Polysaccharides and Glycoconjugates). • Lipids (saturated and unsaturated Fatty acids, Tri-acylglycerols, Phospho lipids, Glycolipids and Steroids) • Structure, Classification and General Properties of α-amino acids; Essential and non-essential amino acids, Levels of organization in proteins; Simple and conjugate proteins
		Chapter 2. Enzyme Action and Regulation Nomenclature and classification of enzymes; Cofactors; Specificity of enzyme action. <ul style="list-style-type: none"> • Isozymes; Mechanism of enzyme action • Enzyme kinetics; Factors affecting rate of enzyme-catalyzed reactions ; Equation of Michaela's -Mendon, Concept of K_m and V_{max},
June -23	20	<ul style="list-style-type: none"> • Enzyme inhibition Allosteric enzymes and their kinetics; Regulation of enzyme action Chapter 3. Metabolism of Carbohydrates and Lipids <ul style="list-style-type: none"> • Metabolism of Carbohydrates: glycolysis, citric acid cycle, gluconeogenesis, phosphate-pentose-pathway Glycogenolysis and Glycogenesis Lipids- Biosynthesis of palmitic acid; Ketogenesis, • β-oxidation and omega-oxidation of saturated fatty acids with even and odd number of carbon atoms
		Chapter 4. Metabolism of Proteins and Nucleotides <ul style="list-style-type: none"> • Catabolism of amino acids: Transamination, Deamination, Urea cycle, Nucleotides and vitamins • Peptide linkages Chapter 5. Digestion and Respiration in humans <ul style="list-style-type: none"> • Structural organization and functions of gastrointestinal tract and associated glands. • Mechanical and chemical digestion of food; Absorptions of carbohydrates, lipids, proteins, water, minerals and vitamins



July -23	16	<ul style="list-style-type: none">• Physiology of trachea and Lung.• Mechanism of respiration, Pulmonary ventilation; Respiratory volumes and capacities; Transport of oxygen and carbon dioxide in blood, Respiratory pigments, Dissociation curves and the factors influencing it; Control of respiration. Chapter 6. Circulation and Excretion in humans <ul style="list-style-type: none">• Components of blood and their functions; hemopoiesis• Blood clotting: Blood clotting system, Blood groups: Rh-factor, ABO and MN• Structure of mammalian heart• Cardiac cycle; Cardiac output and its regulation, Electrocardiogram, Blood pressure and its regulation Structure of kidney and its functional unit; Mechanism of urine formation
August -23	10	Chapter 7. Nervous System and Endocrinology in humans <ul style="list-style-type: none">• Structure of neuron, resting membrane potential(RMP)• Origin of action potential and its propagation across the myelinated and unmyelinated nerve fibers. Types of synapse• Endocrine glands - pineal, pituitary, thyroid, parathyroid, pancreas and adrenal; hormones secreted by them.• Classification of hormones; Mechanism of Hormone action. Chapter 8. Muscular System in humans <ul style="list-style-type: none">• Histology of different types of muscle; Ultra structure of skeletal muscle; Molecular and chemical basis of muscle contraction; Characteristics of muscle twitch; Motor unit, summation and tetanus

[Handwritten signature]


Lesson Plan

Bafna Gold

Date: Page:



Ms. Lakshmi Sowjanya V Lesson Plan for Year 2022-23			
Commencement of Classes : 10-10-2022 and End of III sem. Classes 02/02/2022 24 hrs			
III Semester Molecular Biology Bioinstrumentation & Techniques in Biology			
October -22	10-10-2022 to 15-10-2022	2	Chapter 1: Process of Transcription • Fine structure of gene (Cistron, Recon, Muton)
	17-10-2022 to 22-10-2022	2	• RNA polymerases - types and functions Transcription in prokaryotes and eukaryotes 3.
	24-10-2022 to 29-10-2022	1	Chapter 2: Process of Translation • Genetic code and its salient features Chapter
November -22	31-10-2022 to 05-11-2022	1	Translation in prokaryotes and eukaryotes
	07-11-2022 to 12-11-2022	2	Translation in eukaryotes
	14-11-2022 to 19-11-2022	2	Regulation of gene expression-I
	21-11-2022 to 26-11-2022	2	Regulation of gene expression in prokaryotes- lac operon (inducible)
	28-11-2022 to 3-12-2022	2	trp operon (repressible) in E. coli
December - 22	5-12-2022 to 10-12-2022	2	Regulation of gene expression in eukaryotes - Role of chromatin (euchromatin and heterochromatin) in gene expression
	12-12-2022 to 17-12-2022	2	Regulation of gene expression in eukaryotes - Role of chromatin (euchromatin and heterochromatin) in gene expression
	19-12-2022 to 24-12-2022	2	Post-transcriptional modification: capping, splicing, polyadenylation.
	26-12-2022 to 31-12-2022	2	Concept of RNA editing (mRNA), gene silencing, and, RNAi
Jan 2023	02-01-2023 to 07-01-2023	2	Regulation of gene expression-II • Post-translational modifications: purpose, advantages, and significance; glycosylation, methylation, phosphorylation, and acetylation.
	09-01-2023 to 14-01-2023	2	• Post-translational modifications: purpose, advantages, and significance; glycosylation, methylation, phosphorylation, and acetylation.
	16-01-2023 to 21-01-2023	2	• Intracellular protein degradation. (lysosomal autophagy and ubiquitin proteasome pathway).
	23-01-2023 to 02-02-2023	2	Revision


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.



LESSON PLAN -23 IV Sem.

Month	Hours	Syllabus to be covered (56 hours)
May -23	16	Chapter 1: Principles of Gene Manipulation <ul style="list-style-type: none"> Recombinant DNA Technology: Introduction, steps involved. Restriction Enzymes and Ligases and (Nucleic acid modifying enzyme) x Gene cloning Vector: Concept of plasmids-pBR322, Lamda phage vectors, cosmids Gene transfer techniques (Direct and indirect). (Screening and selection of recombinant colonies) x
		Chapter 2: Applications of Genetic Engineering <ul style="list-style-type: none"> Transgenic animals (Transgenic cow, Transgenic Fish); transgenic plants (cry protein); Gene silencing (Knock out and Knock in mouse). Production of Human Recombinant insulin and Hybridoma technology: Synthesis and applications of Monoclonal antibodies Gene Therapy (SCID) (Biosensors and its applications) x
June -23	20	Chapter 3: Introduction to the Immune System <ul style="list-style-type: none"> Defense against diseases: Introduction, First and second line of defense, Innate and acquired immunity; Antigen presenting cells (APC's), Role of B and T-lymphocytes (Humoral immunity and cell mediated immunity), primary and secondary immune response. Types of immunity Functional aspects of organs of the Immune system - Thymus and bone marrow, spleen, Lymph Node, Small intestine and Liver (Peyer's patches and Von Kupffer cells).
		Chapter 4: Antigens and Antibodies <ul style="list-style-type: none"> (Antigens and haptens: Properties (foreignness, molecular size, heterogeneity). B and T cell epitopes.) x Structure of IgG and functions of different classes of immunoglobulins. Major histocompatibility complex - Structure of MHC I & II.
		Chapter 5: Clinical Immunology <ul style="list-style-type: none"> Immunity against diseases of viral, bacterial and protozoan infections. Vaccines: Types and Uses (Immunization schedule for children.) x (Transplantation immunology: Transplantation of organ- Types, graft rejection and Immuno-suppressors.) x



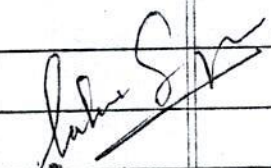
Bafr
Date:


July -23	16	Chapter 6: Bioinformatics <ul style="list-style-type: none">Databases: Sequence and structural Sequence analysis (homology): (Pair wise and Multiple Sequence alignment- BLAST, CLUSTALW, Sequence alignment- FASTA.) xScope and applications of Bioinformatics.
		Chapter 7: Biostatistics I <ul style="list-style-type: none">Measures of central tendency: Mean, Median, Mode.Data summarizing: Frequency distribution, Graphical presentation - bar diagram, pie diagram, histogram.Elementary idea of probability and its applications
August -23	10	Chapter 8: Biostatistics II <ul style="list-style-type: none">Measures of dispersion: (Range) Standard Deviation, Variance. xCorrelation and Regression.Tests of significance: F-test, ANOVA, t-test and Chi square test


Lab IV Course Content

List of experiments 14 units (1 Unit- 4hrs)

1. Calculate the mean, median, mode and standard deviation (Measurement of pre and post clitellar lengths (with suitable examples). 2
2. Measure the height and weight of all students in the class and apply statistical measures. 1
3. Determination of ABO Blood group and Rh factor. 1
4. To study Restriction enzyme digestion using teaching kits (Demonstration only). 1
5. To detect genetic mutations by Polymerase Chain Reaction (PCR) using teaching kits (Demonstration only). 2
6. Demonstration of agarose gel electrophoresis for detection of DNA. 1
7. Demonstration of Polyacrylamide Gel Electrophoresis (PAGE) for detection of proteins. 2
8. To calculate molecular weight of unknown DNA and protein fragments from gel pictures (<https://youtube/mCiCi00cfbg>) 2
9. To learn nucleotide sequence database. 1
10. To learn sequence alignment: Pairwise alignment (Protein/ DNA). 1


Department of Zoology
S. M. College for Women


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.



PRINCIPAL
Smt. ASM College
For Women, BALLARI.

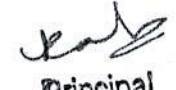
**Smt. A.S.M. College for Women
BALLARI-583 103,**



LESSON PLAN -23

Month	Hours	Syllabus to be covered
May -23	16	History of cell biology and its branches. Cell Theory Study of light and electron microscope cell fractionation, ultra structure of animal cell. Cell organelles Structure and functions of Plasma membrane Mitochondria, Golgi complex Lysosomes, endoplasmic reticulum Ribosomes, Nucleus Centrioles, cytoskeletal elements
June -23	16	Cell cycle: Mitosis & meiosis and regulations of cell cycle
		Biology of cancer: Types of cancer, & characteristics of cancer cell, carcinogenic agents (physical, chemical and biological)
		Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory.
July -23	16	Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis Kinds of fertilization, approach of gametes, fertilization and antifertilization, acrosome reaction – cortical reaction Amphimixis, monospermic polyspermic fertilization, significance of fertilization
		Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples Effect of yolk on cleavage
August -23	16	Early development of frog: Structure of ovum, cleavage Early development of frog: blastulation and gastrulation. Early development of chick: Structure of hen's egg, cleavage blastulation, gastrulation origin and structure of primitive streak
		Early development of chick: structure of 24 48 hours chick embryos. Extra embryonic membranes.
		Reproductive system and Early development of human: Menstrual cycle and its regulation Early development of human: Menstrual cycle and its regulation
		Structure of sperm and ovum, ovulation, cleavage morula, blastocyst and implantation. Placenta introduction Placenta: Morphological and histological classifications of placenta with examples Placenta: structure and functions of placenta – yolk sac placenta, allantoic placenta. Modern trends in human reproduction: Sperm bank, IVF, cloning, surrogate mother multiple births – twins


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.


Principal
Smt. Allum Sumangamma
College for Women, Ballari-583103.



SEMESTER VI.
SYLLABUS FOR PAPER 6.1
CELL BIOLOGY AND DEVELOPMENTAL BIOLOGY

- A. CELL BIOLOGY: 20 Hrs**
- 1) History of cell biology and its branches. Cell Theory
02 hrs
 - 2) Study of light and electron microscope, cell fractionation, ultra structure of animal cell. 3 Hrs
08 Hrs
 - 3) **Cell organelles:**
Structure and functions of Plasma membrane, Mitochondria, Golgi complex, lysosomes
endoplasmic reticulum, Ribosomes, Nucleus., Centrioles, cytoskeletal elements
04 hrs
 - 4) **Cell cycle:** Mitosis and meiosis, regulations of cell cycle. 04 hrs
 - 5) **Biology of cancer:** Types of cancer, characteristics of cancer cell, carcinogenic agent
(physical, chemical and biological) 03 hrs
- B. DEVELOPMENTAL BIOLOGY: (40 Hrs)**
- 6) **Introduction:** 03 hrs
Branches of Embryology, Scope of Embryology, Theories of development, pre formation and
epigenetic theory.
 - 7) **Gammatogenesis:** 05hrs
Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis,
 - 8) **Fertilization:** 04 hrs
Kinds of fertilization, approach of gametes, fertilization and antifertilization, acrosom
reaction – cortical reaction – Amphimixis, monospermic and polyspermic fertilizator
significance of fertilization
03 Hrs
 - 9) **Cleavage:** 03 Hrs
Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples. Effect o
yolk on cleavage.
 - 10) **Early development of frog:** 04 hrs
Structure of ovum, cleavage, blastulation and gastrulation.
 - 11) **Early development of chick:** 08 Hrs
Structure of hen's egg, cleavage, blastulation, gastrulation, origin and structure of primitiv
streak, structure of 24, and 48 hours chick embryos. Extra embryonic membranes.
 - 12) **Reproductive system and Early development of human:** 06 hrs
Menstrual cycle and its regulation. Structure of sperm and ovum, ovulation, cleavage, morula
blastocyst and implantation.
 - 13) **Placenta:** 02 hrs
Morphological and histological classifications of placenta with examples, structure an
functions of placenta – yolk sac placenta, allantoic placenta.
 - 14) **Modern trends in human reproduction:** 04 hrs
Sperm bank, IVF, cloning, surrogate mother and multiple births – twins.

Head of the Department of Zoology
St. A.S.M. College for Women,
Ballari-583103.



DATE OF REOPENING :04-05-2022
Commencement of Classes :04-05-2022

B.Sc VI Semester

YUNUS BASHA

Month	Week	Hours	Syllabus to be covered
May 2022	04-05-2022 to 07-05-22	4hrs	A. Physiology: UNIT I Introduction: Branches of Physiology, Scope of physiology. Digestion: Mechanical digestion and chemical digestion of proteins.
	09-05-2022 to 14-05-22	4hrs	Digestion: Mechanical digestion and chemical digestion of carbohydrates and lipids. UNIT I I Respiration: External and internal respiration –
June 2022	16-05-2022 to 21-05-22	4hrs	Respiratory pigments Hemoglobin, haemocyanin and haemoerythrin. Transport of O ₂ and CO ₂ .
	23-05-2022 to 28-05-22	4hrs	UNIT I II Circulation: Type of circulation- structure, functions and regulation of human heart, blood pressure,
	30-05-2022 to 04-06-22	4hrs	composition of human blood, neurogenic and myogenic hearts
	06-06-2022 to 11-06-2022	4hrs	Nitrogen excretion: Nitrogen excretion in aquatic and terrestrial animals- Ammonotelism and ureotelism and uricotelism with example.
	13-06-2022 to 18-06-2022	4hrs	Ornithine cycle. Physiology of urine formation UNIT IV Muscle contraction: Principle type of muscles. Ultrastructure of striated muscle,
	20-06-2022 to 25-06-2022	4hrs	contractile proteins-myosin, actin, tropomyosin, actinin and Troponin
	27-06-2022 to 02-07-2022	4hrs	Mechanism of muscle contraction and relaxation – sliding filament theory.
July 2022	04-07-2022 to 09-07-2022	4hrs	Nervous co-ordination: Structure of Neuron, Nature and conduction of nerve impulse – synaptic transmission & neuromuscular junction.
	11-07-2022 to 16-07-2022	4hrs	UNIT V Endocrine System: Function of mammalian endocrine glands pituitary, thyroid
	18-07-2022 to 23-07-2022	4hrs	Parathyroid, pancreas, adrenal, testis, ovary & Placenta. Hormonal changes in women.
	25-07-2022 to 30-07-2022	4hrs	B. Biochemistry UNIT VI Enzymes: Classification of enzymes (IUB system), Properties of enzymes, Mechanism of enzyme catalyzed action lock and key method and induced fit hypothesis.
August 2022	01-08-2022 to 06-08-2022	4hrs	UNIT VIII Vitamins: Fat soluble vitamins (A,D,E and K) water soluble vitamins (B complex and vitamin C) functions and deficiency symptoms
	08-08-2022 to 13-08-2022	3Hrs	Glycolysis, Kreb's cycle, ETP (Electron Transport Phosphorylation).
	16-08-2022 to 19-08-2022	3Hrs	Revision

Head of the Department of Zoology
Smt. A.S.M. College for Women

Head of the Department of Zoology
Smt. A.S.M. College for Women

Ballari-583103.

2021-22
Smt. A.S.M. College for Women
BALLARI
583103

Lesson Plan
DATE OF REOPENING : 18-10-2021

Commencement of Classes : 18-10-2021, V Semester Genetics : D. Satheesh

Month	Week	Hours	Syllabus to be covered
October -21	18-10-2021 to 23-10-2021	4	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology,
	25-10-2021 to 30-10-2021	4	Chromosomes: Chromosome number, size chromosomal morphology, and types. Structure and models. Heterochromatin and euchromatin. Giant chromosomes - polytene and lamp brush chromosomes.
November -21	01-11-2021 to 06-11-2021	2	Nucleic acids and protein biosynthesis: Introduction: Identification of genetic material – Griffith’s experiment Chemistry of nucleic acids, structure of DNA. Watson and crick DNA model, replication of DNA. Forms of DNA.
	8-11-2021 to 13-11-2021	4	Types of RNA. Genetic code, properties of genetic code, wobble hypothesis, mechanism of protein biosynthesis.
	15-11-2021 to 20-11-2021	4	Interaction of genes: Supplementary factors -9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte. Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 – Coat colour in mouse
	22-11-2021 to 27-11-2021	4	Complementary factors - 9 : 7, flower colour in sweet peas, Multiple factors / polygenic inheritance – Skin Colour in Man. Lethal gene - Coat colour in mice.
	29-11-2021 to 4-12-2021	4	Multiple Alleles: Characteristics of Multiple Alleles, Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect.
	6-12-2021 to 11-12-2021	4	Linkage and Crossing over: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man,
December - 21	13-12-2021. to 18-12-2021	4	Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over, (Stern’s Experiment on Drosophila), Significance of Crossing over
	20-12-2021 to 25-12-2021	3	Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, Gynandromorphy and intersexes Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophilia and colour blindness in man. Sex linkage in poultry, Y linked genes
	27-12-2021 to 01-01-2022	4	Mutations: Chromosomal aberrations- Human Diseases: Klinefelter’s Syndrome, Turner’s syndrome, Edwards Syndrome, Patau syndrome Chi- du – chart syndrome and Down’s syndrome (Mongolism)..
	03-01-2022	4	Gene mutations – Types of gene mutation and Molecular


[Signature]
PRINCIPAL
Smt. ASM College
For Women, BALLARI.

[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.



	to 08-01-2022		basis of gene mutations
January -22	10-01-2022 to 15-01-2022	3	Human genetics and eugenics: Common human genetic disorders Inborn errors of metabolism: Albinism, Phenylketonuria, Alkaptonuria, Sickle cell anemia. Thalassaemia, Huntington's chorea, Eugenics.
	17-01-2022 to 22-01-2022	4	Genetic engineering and biotechnology: Introduction. Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence, Cloning Vectors-Plasmids, Gene Cloning),
	24-01-2022 to 29-01-2022	3	Production of insulin by r DNA technology, PCR and, DNA finger printing. DNA vaccines.
	31-01-2022 to 05-02-2022	4	Applications of genetic engineering in Medicine, food technology and agriculture. Useful and harmful effect of biotechnology
February- 22	07-02-2022 to 12-02-2022	4	Revision
	14-02-2022 to 19-02-2022	4	Revision
	21-02-2022 to 26-02-2022	4	Revision
	28-02-2022	1	


Principal
Smt. ASM College
For Women, Ballari.


Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.



Lesson Plan

DATE OF REOPENING :04-05-2022			
Commencement of Classes :04-05-2022, VI Semester : D. Satheesh			
Month	Week	Hours	Syllabus to be covered
May 2022	04-05-2022 to 07-05-22	4hrs	UNIT I 1) Introduction : Definition- Subdivision of Ecology-Scope of Ecology. 2) Abiotic Factor: ➤ Light-effect of light on animals,
	09-05-2022 to 14-05-22	4hrs	➤ Temperature - thermal stratification-effect of temperature on animals, Adaptations to extreme temperature. UNIT II 1) Animal relationships :Mutualism, commensalism parasitism ammensalism. Predation and competition with relevant examples
	16-05-2022 to 21-05-22	4hrs	UNIT III 1) Ecosystem: Components and functions of ecosystem. Natural ecosystems and man engineered ecosystem. Types of food chains with examples, Food web, ecological pyramids.
	23-05-2022 to 28-05-22	4hrs	Study of pond as Typical Ecosystem - Zonation, abiotic components and biotic components UNIT IV Habitat Ecology : Marine habitat : Physico-Chemical Feature, ecological zonation and classification of marine biota, Ecological adap Estuarine habitat : Physico-Chemical Features and Biota. Mangroves.
June 2022	30-05-2022 to 04-06-22	4hrs	Fresh water habitat : Physico-Chemical Features of Lentic and lotic water bodies. Ecological adaptations of fresh water animals living in Lotic Water Bodies
	06-06-2022 to 11-06-2022	4hrs	Terrestrial habitat- A brief account of biomes (Characteristics and fauna of Tundra, taiga, Forests & Deserts. Faunal adaptations to Desert Conditions
	13-06-2022 to 18-06-2022	4hrs	UNIT V Population Ecology : Population density, Natality and Mortality, age distribution, population growth rate, population growth curves.
	20-06-2022 to 25-06-2022	4hrs	1) Environment pollution: Definition, Pollutants and types of Pollution- Air Pollution, Water. Pollution, Soil Pollution — Sources, effect and control.

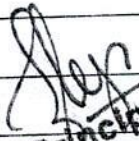
[Signature]
Smt. A.S.M. College
Women, Ballari.

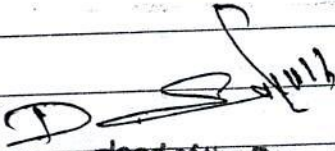
[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women



July 2022	27-06-2022 to 02-07-2022	4hrs	ZOOGEOGRAPHY AND WILD LIFE BIOLOGY UNIT VI1) Zoogeographical realms : Zoogeographical realms (with subdivision) of world, with climatic conditions and examples of characteristic fauna.
	04-07-2022 to 09-07-2022	4hrs	2) Geographic distribution of animals: Continuous and discontinuous distributions with examples — Barriers of dispersal — topographic and vegetative barriers, large bodies of water as barriers climatic barriers
	11-07-2022 to 16-07-2022	4hrs	1) Wilde Life Definition, Wild life problems -Hunting, over harvesting, habitat loss, Importance of Wild Life Conservation and management

July 2022	18-07-2022 to 23-07-2022	4hrs	.2) Distribution of wild life in India Wild fauna in the Himalayan ranges, the peninsular Indian Sub region.
	25-07-2022 to 30-07-2022	4hrs	UNIT VIII: Agencies engaged in wild life conservation: Indian Board For Wildlife (IBWL), Wildlife Institute of India (WII) Central Zoo Authority of India (CZA), Bombay Natural.
August 2022	01-08-2022 to 06-08-2022	4hrs	History Society (BLAHS); Project Tiger, Wild life (protection) Act 1972. World Wide j Fund for Nature (W,WF), CITES. (Convention of international trade in endangered species of wild life flora j and fauna), Ramsar convention.
	08-08-2022 to 13-08-2022	3Hrs	CBD (Convention on Biological Diversity), Trade Record Analysis of Flora Fauna in Commerce (TRAFFIC) IUCN-Red data book
	16-08-2022 to 19-08-2022	3Hrs	Revision


Principal
Smt. ASM College
For Women, Ballari.


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

LESSON PLAN

RIO

Date: / /



DATE OF REOPENING :18-10-2021

Commencement of Classes :18-10-2021, V semester Paper 5.2: Neha Naseeba S

Week	Hours	Syllabus to be covered
18-10-2021 to 23-10-2021	4	UNIT: I Definition and types of animal behavior Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation
25-10-2021 to 30-10-2021	4	Learned behavior: Habituation, Imprinting Conditioned reflex and Insight learning
01-11-2021 to 06-11-2021	2	Social organization in Honey bees
8-11-2021 to 13-11-2021	4	Social organization in Macaques. Unit II : i.Migration in fishes – Types of migration anadromous and catadromous migration with reference to Hilsa and Anguilla
15-11-2021 to 20-11-2021	4	Migration in birds- Methods of studying migration, preparation for migration
22-11-2021 to 27-11-2021	4	Types of Bird Migration, Orientation and Navigation.
29-11-2021 to 4-12-2021	4	Biological Clock :Introduction, Definition of chronobiology Biological clock, origin of biological clock various types of Rhythms.
6-12-2021 to 11-12-2021	4	Unit III: Parental care in fishes
13-12-2021 to 18-12-2021	4	Unit III: Parental care in amphibians
20-12-2021 to 25-12-2021	3	Nesting behavior in birds- types of nests.
27-12-2021 to 01-01-2022	4	Unit-IV Mimicry: definition, types of mimicry with examples Coloration- types of coloration
03-01-2022 to 08-01-2022	4	Evolution: Theories of organic evolution: Lamarckism and Neo- Lamarckism. Darwin – Wallace theory of natural selection,
10-01-2022 to 15-01-2022	3	Synthetic theory of evolution. Gene mutation, gene flow, genetic drift Natural selection and isolation,
17-01-2022 to 22-01-2022	4	Speciation: Concept of species – Sympatric and Allopatric speciation.
24-01-2022 to 29-01-2022	3	Microevolution and Macroevolution
31-01-2022 to 02-02-2022	4	Fossils and Fossilization, Types of Fossils, Significance of fossils. Origin and evolution of man

December - 21

January-22

February-22

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

PRINCIPAL
Smt. ASM College
For Women, BALLARI.

DATE OF REOPENING :05-05-2021
B.Sc. II, IV, VI Semester 2020-21
Commencement of Classes :05-05-2021,
II Semester : Biology of Chordata and Osetology
Lakshmi Sowjanya V



Month	Week	Hours	Syllabus to be covered
May -21	06-05-21 to 15 -05-21	2	Introduction to chordate: general characters and outline classification of phylum chordate up to classes with examples.
	17-05-21 to 22 -05-21	2	General characters of subphylum, urordata, cephalochoradaya and vertebrata.
	24-05-21 to 31-05-21	2	Class cyclostomata: General characters with suitable examples.
June- 21	01-06-21 to 05-06-21	2	General organization of petromyzon (in brief)
	07-06-21 to 12-06-21	2	Pisces: General characters
	14-06-21 to 19-06-21	2	Classification with suitable examples of Oestichthyes and
	21-06-21 to 30-06-21	2	Classification of Chondryichthyes
July -21	01-07-21 to 03-07-21	2	Amphibia: General characters
	05-07-21 to 10-07-21	2	Classification up to [living only] orders with suitable examples.
	12-07-21 to 17-07-21	2	Classification up to [living only] orders with suitable examples.
	19-07-21 to 24-07-21	2	Ecology and distribution of Amphibia.
	26-07-21 to 31-07-21	2	Hyla, Bufo, Salamander, Ichtyophis
August -21	02-08-21 to 07-08-21	2	Reptilia: General characters and classification up to orders
	09-08-21 to 14-08-21	2	Living orders only with suitable examples.
	16-08-21 to 21-08-21	2	Structure and Poison apparatus of Cobra.
	23-08-21 to 28-08-21	2	Poisonous [Krait, Viper, Cobra, Hydrophis]
	30-08-21 to 04-09-21	2	Non Poisonous [Python, Typhlop, Natrix, Eryx] snakes of India
	06-08-21 to 04-09-21	2	Revision


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.


PRINCIPAL
Smt. ASM College
For Women, BALLARI.

ಸ್ಥಳ : ಬಳ್ಳಾರಿ.
ದಿನಾಂಕ : 29/09/2015.

ಇವರಿಂದ,
ಕೋಳೂರು ಮಲ್ಲಿಕಾರ್ಜುನ ಗೌಡ, ಅಧೀಕ್ಷಕರು,
ವುಂಕಿ ಸಣ್ಣರುದ್ರಪ್ಪ ಕಾನೂನು ಮಹಾವಿದ್ಯಾಲಯ,
ಶಿ.ವೈ.ನಾಗೇಶ ಶಾಸ್ತ್ರಿನಗರ, ಬಳ್ಳಾರಿ - 583103

ಇವರಿಗೆ,
ಮಾನ್ಯ ಆಧ್ಯಕ್ಷರು\ಕಾರ್ಯದರ್ಶಿಗಳು,
ವೀರಶೈವ ವಿದ್ಯಾವರ್ಧಕ ಸಂಘ,
ಗಾಂಧಿನಗರ, ಬಳ್ಳಾರಿ -583103

ಮಾನ್ಯರೇ,

ದಿನಾಂಕ : 25-10-2015 ರಂದು ಭಾನುವಾರ ನನ್ನ ಮೊಮ್ಮಗಳ ಹುಟ್ಟು ಹಬ್ಬದ ಆಚರಣೆ ಇರುತ್ತದೆ. ಆದ್ದರಿಂದ
ತಾವುಗಳು ದಯಾಮಾಡಿ ದಿನಾಂಕ : 25-10-2015 ರಂದು ಸಂಘದ ಸಭಾಂಗಣವನ್ನು ನೀಡಬೇಕಾಗಿ ವಿನಂತಿ.
ಭಾನುವಾರವಿರುವುದರಿಂದ ಕಾಲೇಜಿಗೆ ಯಾವುದೇ ತೊಂದರೆ ಇರುವುದಿಲ್ಲ.

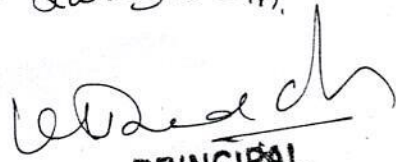
ಧನ್ಯವಾದಗಳೊಂದಿಗೆ,

ತಮ್ಮ ವಿಶ್ವಾಸಿ,



(ಕೋಳೂರು ಮಲ್ಲಿಕಾರ್ಜುನ ಗೌಡ)

ಕೊಡು ಮಕ್ಕಳ ವಿಧವೆ ಲಿಖಿತ ಬರಹವು ನೋ
ಶಿಕ್ಷಣಕ್ಕೆ ಮಗು ಉಪಯುಕ್ತವಿಲ್ಲ.



PRINCIPAL

Smt. Allum Sumangalamma Memorial
College for Women, BALLARI

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

PRINCIPAL
Smt. Allum Sumangalamma Memorial
College for Women, BALLARI


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

DATE OF REOPENING :05-05-2021
B.Sc. II, IV, VI Semester 2020-21
Commencement of Classes :05-05-2021,
IV Semester : Physiology and Biochemistry
Lakshmi Sowjanya V



Month	Week	Hours	Syllabus to be covered
May -21	06-05-21 to 15 -05-21	2	Introduction to the syllabus
	17-05-21 to 22 -05-21	2	Muscle contraction: Principle types of muscles. Ultrastructure of striated muscles
	24-05-21 to 31-05-21	2	contractile proteins – myosin, actin, tropomyosin, troponin and actinin.–
June- 21	01-06-21 to 05-06-21	2	contractile proteins – myosin, actin, tropomyosin, troponin and actinin.–
	07-06-21 to 12-06-21	2	Mechanism of muscle contraction and relaxation the sliding filament theory
	14-06-21 to 19-06-21	2	Nervous co-ordination: Nature and conduction of nerve impulse
	21-06-21 to 30-06-21	2	Neuromuscular and synaptic transmission junction neurotransmitters
July -21	01-07-21 to 03-07-21	2	Endocrine system: Functions of mammalian endocrine glands pituitary, thyroid,
	05-07-21 to 10-07-21	2	parathyroid, ,testis, ovary,
	12-07-21 to 17-07-21	2	pancreas, adrenals,placenta and pineal gland.
	19-07-21 to 24-07-21	2	Enzymes : Classification of enzymes (IUB system),
	26-07-21 to 31-07-21	2	Mechanism of enzyme catalyzed action – lock and key method, induced fit hypothesis.
August -21	02-08-21 to 07-08-21	2	Specificity of enzymes, reversibility of enzyme action,
	09-08-21 to 14-08-21	2	enzyme inhibitors, cofactors
	16-08-21 to 21-08-21	2	Vitamins: Fat soluble vitamins (A, D, E and K) functions and deficiency symptoms.
	23-08-21 to 28-08-21	2	Water soluble vitamins (B complex and vitamin C) functions and deficiency symptoms.
	30-08-21 to 04-09-21	2	Glycolysis, Kreb,s cycle,
September -21	06-08-21 to 04-09-21	2	ETP (Electron transport phosphorylation)
	06-09-21 to 11-09-21	2	Revision
	13-09-21 to 22-09-21	2	Revision


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.


PRINCIPAL
Smt. ASM College
For Women, BALLARI.

4. If a Teacher Fellow fails to complete his/her Ph.D/M.Phil programme and leaves it midway, he/she has to refund the entire amount paid to him/her by the UGC during his/her Teacher Fellowship. The teacher must give an undertaking in this regard (Encl I).


5. An undertaking from the teacher fellow to the effect that he will complete the research work within the allotted tenure/plan period failing which he will refund the fellowship grant, substitute teacher salary to UGC-SWRO, may also collected before relieving the Teacher Fellow under the Scheme.

6. In case, at later date, the details given in the application form are found to be incorrect and/or some deficiency in the selection committee proceedings, the above award will be withdrawn and the teacher fellow has to refund the entire amount.

7. The approval and sanction in respect of the substitute teachers to be appointed in place of teacher fellows will be conveyed on receipt of all documents as prescribed in the guidelines.

The Teacher should be relieved for the award only on the production of his/her Ph.D Registration.

Yours faithfully


(Dr.N. Gopu Kumar)
Deputy Secretary

Copy to:

The Dean/Director, College Development Council
GULBARGA UNIVERSITY
GNANA GANGA
GULBARGA - 585 106

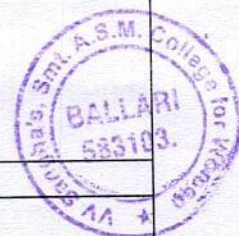
✓ MR K.S.RAMANAİK
SEL GR. LECTURER
Dept of HISTORY

SMT. ALLUM SUMANGALAMMA MEMORIAL COLLEGE FOR WOMEN
SMT. ALLUM SUMANGALAMMA ROAD, GANDHI NAGAR
BELLARY - 583 103

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

PRINCIPAL
Smt. ASM College
For Women, BALLARI.

DATE OF REOPENING :05-05-2021
B.Sc. II, IV, VI Semester 2020-21
Commencement of Classes :05-05-2021,
IV Semester : Physiology and Biochemistry
Neha Naseeba S



Month	Week	Hours	Syllabus to be covered
May -21	10-05-21 to 15 -05-21	3	Introduction to the syllabus
	17-05-21 to 22 -05-21	3	GC of Aves and classification
	24-05-21 to 31-05-21	4	Classification of aves with examples upto orders. Flight adaptation of birds
June- 21	01-06-21 to 05-06-21	3	Flight adaptation of birds
	07-06-21 to 12-06-21	3	Economic importance of birds.
	14-06-21 to 19-06-21	3	GC of Mammals and classification upto sub classes with suitable examples
	21-06-21 to 30-06-21	3	Study of rat- morphology and digestive system
July -21	01-07-21 to 03-07-21	3	Study of digestive system and ateria l& venous system
	05-07-21 to 10-07-21	3	Atrial & venous system and reproductive system of rat.
	12-07-21 to 17-07-21	3	Reproductive system of rat
	19-07-21 to 24-07-21	2	GC of Aves and classification
	26-07-21 to 31-07-21	2	Classification of aves with examples upto orders. Flight adaptation of birds
August -21	02-08-21 to 07-08-21	2	Flight adaptation of birds
	09-08-21 to 14-08-21	2	Economic importance of birds.
	16-08-21 to 21-08-21	2	GC of Mammals and classification upto sub classes with suitable examples
	23-08-21 to 28-08-21	2	Study of rat- morphology and digestive system
	30-08-21 to 04-09-21	2	Study of digestive system and ateria l& venous system
September -21	06-08-21 to 04-09-21	2	Atrial & venous system and reproductive system of rat.
	06-09-21 to 11-09-21	2	Reproductive system of rat
	13-09-21 to 22-09-21	2	Revision

(Signature)
 Head of the Department of Zoology
 Smt. A.S.M. College for Women
 Ballari-583103.

(Signature)
PRINCIPAL
 Smt. ASM College
 For Women, BALLARI.



ज्ञान - विज्ञान विमुक्तये

विश्वविद्यालय अनुदान आयोग

नैरुत्य प्रादेशिक कार्यालय

UNIVERSITY GRANTS COMMISSION

SOUTH WESTERN REGIONAL OFFICE

P.K. Block, Palace Road, Gandhinagar
Bangalore-560 009.

Phone : (080) 2228 0380 Fax : (080) 2228 0381

04-Dec-10

F.No.FIP/11th Plan)/KAGU027 TF 02

The Principal

TFCODE: KAGU027 TF02

SMT. ALLUM SUMANGALAMMA MEMORIAL COLLEGE FOR WOMEN

SMT. ALLUM SUMANGALAMMA ROAD, GANDHI NAGAR

BELLARY - 583 103

"THIS TF CODE SHOULD BE QUOTED IN ALL CORRESPONDENCE WITHOUT FAIL"

**Sub:- Award of Teacher Fellowship under Faculty Development
Programme during XI th Plan period.**

Sir,

Based on the recommendations of the Selection committee/ University, the Commission conveys its approval for the award of Teacher Fellowship to MR .K.S.RAMANAİK Dept of HISTORY, SMT. ALLUM SUMANGALAMMA MEMORIAL COLLEGE FOR WOMEN, SMT. ALLUM SUMANGALAMMA ROAD, GANDHI NAGAR, BELLARY under the XIth plan period as per the details given below.

Name of the Teacher Fellow	Programme	Subject	Duration
MR K.S.RAMANAİK	PHD	HISTORY	Two year

1. The Research Center of the Teacher Fellow will be SCOTT CHRISTIAN COLLEGE, NAGERCOIL. After joining in the Research Center the Teacher Fellow should submit the joining report to this office as per the prescribed format (Annexure IV - FIP XI guidelines).

2. A teacher fellow will be eligible for reimbursement of actual contingency expenditure subject to a maximum of Rs. 15000/- per year. The contingency grant shall be released only on receipt of the Utilization Certificate in the prescribed proforma (Annexure V, FIP XI Plan guideline) may be submitted to the SWRO, UGC.

3. The supervisor/guide of the Teacher Fellow must give a progress report in the mid of the period for which the fellowship is awarded. In case of negative report given by the Supervisor/ Guide, the awarded fellowship to the Teacher Fellow may be withdrawn by the UGC.

Contd..2.

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

PRINCIPAL
Smt. ASM College
For Women, BALLARI.



Md. Yunus Basha I Semester Cell biology			
Commencement of Classes :17-08-2022 And End of I sem.17/12/2022 Classes 28 hrs			
Month	Week	Hours	Syllabus to be covered
August 2022	Classes delayed due To admissions to I semester		
Sep-2022	05/09/2022 to 14/09/2022 Classes not engaged due to Practical 4 and 6 Sem.		
	Classes suspended Due to Examination 16/09/2022 to 30/09/2022		
	Holidays 01/10/2022 to 09/10/2022		
October -22	10-10-2022 to 15-10-2022	2	Chapter 1. Structure and Function of Cell Organelles I in Animal cell Plasma membrane: chemical structure—lipids and proteins.
	17-10-2022 to 22-10-2022	2	Endomembrane system: protein targeting and sorting, transport, endocytosis and exocytosis
	24-10-2022 to 29-10-2022	1	Chapter 2. Structure and Function of Cell Organelles II in Animal Cell Cytoskeleton: microtubules, microfilaments, intermediate filaments
November -22	31-10-2022 to 05-11-2022	1	Mitochondria: Structure, oxidative phosphorylation; electron transport system Peroxisome and Ribosome: structure and function
	07-11-2022 to 12-11-2022	2	Chapter 3. Nucleus and Chromatin Structure Structure and function of nucleus in eukaryotes Chemical structure and base composition of DNA and RNA
	14-11-2022 to 19-11-2022	2	DNA supercoiling, chromatin organization, structure of chromosomes Types of DNA and RNA
	21-11-2022 to 26-11-2022	2	Chapter 4 Cell cycle, Cell Division and Cell Signaling Cell division: mitosis and meiosis
	28-11-2022 to 3-12-2022	2	Introduction to Cell cycle and its regulation, apoptosis
	December - 22	5-12-2022 to 10-12-2022	2
12-12-2022 to 17-12-2022		2	Cell-cell interaction: cell adhesion molecules, cellular junctions

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

Principal

Smt. Allum Sumangamma Memorial
College for Women, Ballari-583103



V Semester Genetics Md. Yunus Basha			
Commencement of Classes : 10-10-2022 and End of V sem. Classes 02/02/2022 24 hrs			
			Chromosomes: Chromosome number, size chromosomal morphology, and types, structure and models.
October -22	10-10-2022 to 15-10-2022	2	
	17-10-2022 to 22-10-2022	2	
	24-10-2022 to 29-10-2022	1	Heterochromatin and euchromatin. Giant chromosomes-polytene and lampbrush.
November -22	31-10-2022 to 05-11-2022	1	Nucleic Acids, and Protein Biosynthesis: Identification of genetic material — Griffith's experiment.
	07-11-2022 to 12-11-2022	2	Chemistry of nucleic acids, structure of DNA, Watson and crick DNA model,
	14-11-2022 to 19-11-2022	2	replication of DNA. Forms of DNA, Types of RNA.
	21-11-2022 to 26-11-2022	2	Genetic code, properties of genetic code, wobble hypothesis,
	28-11-2022 to 3-12-2022	2	mechanism of protein biosynthesis
December - 22	5-12-2022 to 10-12-2022	2	Genetic Engineering and Biotechnology: Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence,
	12-12-2022 to 17-12-2022	2	Cloning Vectors-Plasmids,
	19-12-2022 to 24-12-2022	2	Gene-Cloning); production on of insulin by rDNA technology PCR
	26-12-2022 to 31-12-2022	2	DNA finger printing and DNA vaccines..
Jan 2023	02-01-2023 to 07-01-2023	2	Applications of genetic engineering medicine, food technology and agriculture
	09-01-2023 to 14-01-2023	2	Useful effect of biotechnology
	16-01-2023 to 21-01-2023	2	harmful effect of biotechnology
	23-01-2023 to 28-01-2023		Revision
Feb 23	30-01-2022 to 02-02-2023		Revision

[Handwritten signature]

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

[Handwritten signature]
Principal

Smt. Allum Sumangamma Memorial
College for Women, Ballari-583103



DATE OF REOPENING :01-09-2020			
B.Sc. I,II,V Semester 2020-21			
Commencement of Classes :01-09-2020, V Semester Genetics : D. Sathesh			
Month	Week	Hours	Syllabus to be covered
September 2020	02-09-20 to 10-09-20	6	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology,
	14-09-20 to 19-09-20	5	Chromosomes: Chromosome number, size chromosomal morphology, and types. Structure and models. Heterochromatin and euchromatin. Giant chromosomes - polytene and lamp brush chromosomes.
	21-09-20 to 26-09-20	6	Nucleic acids and protein biosynthesis: Introduction: Identification of genetic material – Griffith's experiment Chemistry of nucleic acids, structure of DNA. Watson and crick DNA model, replication of DNA. Forms of DNA.
	28-09-20 to 30-09-20	5	Types of RNA. Genetic code, properties of genetic code, wobble hypothesis, mechanism of protein biosynthesis.
October -20	01-10-20 to 03-10-20	2	Interaction of genes: Supplementary factors -9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte.
	05-10-20 to 10-10-20	4	Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 – Coat colour in mouse
	12-10-20 to 17-10-20	5	Complementary factors - 9: 7, flower colour in sweet peas, Multiple factors / polygenic inheritance –Skin Colour in Man. Lethal gene - Coat colour in mice
	19-10-20 to 24-10-20	6	Multiple Alleles: Characteristics of Multiple Alleles, Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect.
	17-10-20 to 29-10-20	6	Linkage and Crossing over: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man,
November-20	02-11-20 to 07-11-20	3	Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern's Experiment on Drosophila), Significance of Crossing over
	09-11-20 to 14-11-20	4	Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, Gynandromorphy and intersexes
	17-11-20 to 21-11-20	5	Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophilia and colour blindness in man. Sex linkage in poultry, Y linked genes
	23-11-20 to 28-11-20	5	Mutations: Chromosomal aberrations- Human Diseases: Klinefelter's Syndrome, Turner's syndrome,
December-20	01-12-20 to 05-12-20	3	Edwards Syndrome, Patau syndrome Chi- du – chart syndrome and Down's syndrome (Mongolism),..
	07-12-20 to	4	Gene mutations – Types of gene mutation and Molecular

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

PRINCIPAL
Smt. ASM College
For Women, BALLARI.

CIVIL POLICE CONSTABLE EXAMINATION(Male and Female)

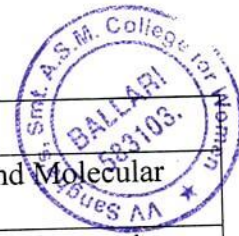
Date: 24/10/2021 (SUNDAY)

Name of centre: 22. Smt. A. S. M. College for Women, Ballari - 583 103

Invigilators Attendance date 24/10/2021

Sl.No.	Name	Designation	Room No	Signature
1.	Dr. S.Y. Thimmareddy	Principal		
2.	Ms. H.M.Suvarna Latha	Invigilator		H.M.Suvarna Latha
3.	Mr. Abeed Hussain	Invigilator		
4.	Mr. S.G. Malipatil	Invigilator		S.G. Malipatil
5.	Ms. Anjana	Invigilator		Anjana
6.	Ms. Santhoshi kumari	Invigilator		Santhoshi
7.	Ms. Chaitra H.S	Invigilator		H. Chaitra
8.	Ms. Agila G	Invigilator		
9.	Dr. Beemanagouda Patil	Invigilator		
10.	Mr. M. Mangunath	Invigilator		M. Mangunath
11.	Ms. Gowri - M.	Invigilator		Gowri M
12.	Ms. Varsha	Invigilator		Varsha
13.	Ms. Ruhinaz	Invigilator		Ruhinaz
14.	Ms. Anupama K	Invigilator		Anupama K
15.	Ms. Poornima	Invigilator		
16.	Ms. Ashwini J	Invigilator		Ashwini J
17.	Ms. Aishwarya lakshmi	Invigilator		K. Aishwarya lakshmi
18.	Dr. D. Satheesh	Additional Invigilator		D. Satheesh
19.	Mr. U. Chandra sekhar	Assistant		U. Chandra sekhar
20.	Mr. Vagesh S.M.	Assistant		
21.	A Basavaraj	Attender		
22.	K Pampana gouda	Attender		
23.	Suresh	Attender		

	12-12-20		basis of gene mutations
	14-12-20 to 19-12-20	5	Gene mutations – Types of gene mutation and basis of gene mutations
	21-12-20 to 26-12-20	6	Human genetics and eugenics: Common human genetic disorders
	28-12-20 to 02-01-21	6	Inborn errors of metabolism: Albinism, Phenylketonuria, Alkaptonuria,
January -21	04-01-21 to 09-01-21	6	Sickle cell anemia. Thalassaemia, Huntington's chorea, Eugenics.
	11-01-21 to 16-01-21	5	Genetic engineering and biotechnology: Introduction. Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence,
	18-01-21 to 23-01-21	4	Cloning Vectors-Plasmids, Gene Cloning),
	25-01-21 to 30-01-21	3	Production of insulin by r DNA technology,.
February 21	01-02-21 to 06-02-21	4	PCR and, DNA finger printing. DNA vaccines
	08-02-21 to 13-02-21	5	Applications of genetic engineering in Medicine, food technology and agriculture. Useful and harmful effect of biotechnology
	15-02-21 to 20-02-21	3	Revision
	22-02-21 to 27-02-21	3	Revision



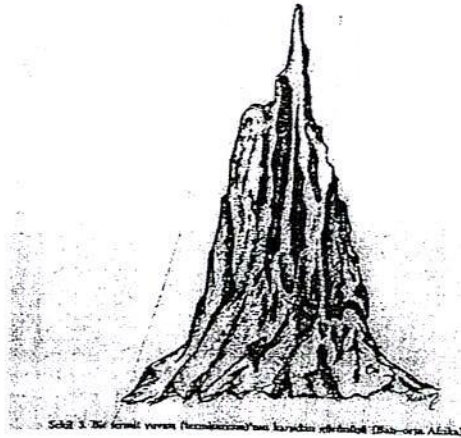
D. Srinivas

Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.

[Signature]

PRINCIPAL
Smt. ASM College
For Women, BALLARI.

Social organisation in Termites



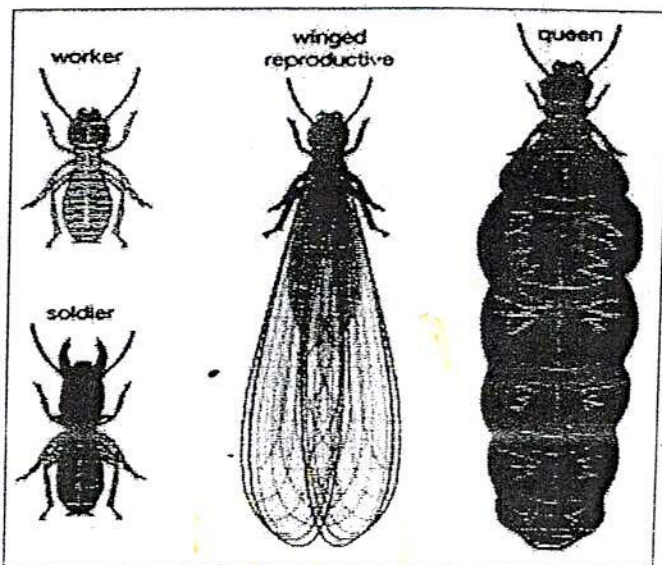
Termites are eusocial insects that are classified at the taxonomic rank of infraorder Isoptera, or as epifamily Termitoidae within the cockroach order Blattodea. They differ from other social insects in having a larger number of castes, of which 3 are reproductive caste and 2 are sterile caste.

The three reproductive or fertile castes of termites are as follows

1. Macropterous or winged forms.
2. Brachypterous or short winged forms.
3. Apterous or wingless forms.

The two non-reproductive or sterile castes of termites are as follows

1. Workers.
2. Soldiers






DATE OF REOPENING :05-05-2021
B.Sc. II, IV, VI Semester 2020-21
Commencement of Classes :05-05-2021,
VI Semester : Ecology, Zoogeography and Wildlife biology
D. Satheesh

Month	Week	Hours	Syllabus to be covered
May -21	06-05-21 to 15 -05-21	6	Definition, History, Ecology – Subdivision of Ecology – Scope of Ecology. Light – effect of light on animals, Temperature – thermal stratification – effect of temperature on animals, Adaptations to extreme temperature.
	17-05-21 to 22 -05-21	5	Mutualism, commensalism parasitism, ammensalism, predation and competition with relevant examples. Components and Functions of Ecosystem. Natural ecosystems and man engineered ecosystem. Laws of thermodynamics. Energy flow in ecosystem, types of food chains with examples, Food web, ecological pyramids.
	24-05-21 to 31-05-21	6	Study of pond as Typical Ecosystem –Zonation, abiotic components and biotic components Community structure, Ecological stratification – Ecotone& Edge effect. Ecological Niches.
June- 21	01-06-21 to 05-06-21	2	Marine habitat: Physico-Chemical Feature, ecological zonation and classification of marine biota, Ecological adaptations to pelagic water and Deep Sea, Estuarine habitat: Physico-Chemical Features and Biota. Mangroves.
	07-06-21 to 12-06-21	4	Fresh water habitat: Physico-Chemical Features of Lentic and lotic water bodies. Ecological adaptations of fresh water animals living in Lotic Water bodies
	14-06-21 to 19-06-21	5	Terrestrial habitat – A brief account of biomes (Characteristics and fauna of Tundra, taiga, Grasslands, Savannas, chaparrals, Decidua's Forests and Deserts.). Faunal adaptations to Desert conditions
	21-06-21 to 30-06-21	6	Population density, Natality and Biotic potential – Allee's principle and Gause's principle Mortality, age distribution, population growth rate, population growth curves.
July -21	01-07-21 to 03-07-21	5	Environment pollution: Definition, Pollutants and types of Pollution- Air Pollution, Water Pollution, Soil Pollution – Sources, effect and control
	05-07-21 to 10-07-21	4	Zoogeographical realms (with subdivision) of world, with climatic conditions and examples of characteristic fauna – brief account of Wallace's line
	12-07-21 to 17-07-21	5	Continuous and discontinuous distributions with examples – Barriers of dispersal – topographic and vegetative barriers, large bodies of water as barriers climatic barriers.
	19-07-21 to 24-07-21	5	Wild life fauna in the Himalayan ranges, the peninsular Indian sub region, Deccan plateau, Western Ghats, Eastern hill chain, the Indian desert, tropical rain forests,
	26-07-21 to 31-07-21	6	Indian Board for Wildlife (IBWL), Wildlife Institute of India (WII), Central Zoo Authority of India (CZA), Bombay Natural History Society (BNHS), Project Tiger,
August -21	02-08-21 to 07-08-21	3	Wild life (protection) Act 1972. World Wide Fund for Nature (WWF), Convention of international trade in endangered species of wild life flora and fauna. CITES),
	09-08-21 to 14-08-21	4	Ramsar convention, Convention on Biological Diversity (CBD), Trade Record Analysis of Flora & Fauna in Commerce (TRAFFIC) IUCN- Red Data Book,


Head of the Department of Zoology
Smt. A.S.M. College for Women,
Ballari-583103.


PRINCIPAL
Smt. ASM College
For Women, BALLARI.

Session-1

R-20

District Code :

30

Centre Code:

3

Polythene Sl.No.:

3359

Room No.: 7

Subject Code	Total QP	QP & OMR Sl.No.		Total Envps	Envp Sl.No.	Room Wise Used OMR Return Enlp Sl.No	Box No.
		From	To				
P1-NKM	8	9097235	9097242	1	11493 ✓	3359	2344
P1-NKM	8	9097243	9097250	1	11494 ✓		
P1-NKM	4	9097251	9097254	1	11495 ✓		



DATE OF REOPENING :17-11-2020
Commencement of Classes :17-12-2020, I semester
Yunus Basha

Month	Week	Hours	Syllabus to be covered
October -21	18-10-2021 to 23-10-2021	4	Chapter 1. Structure and Function of Cell Organelles I in Animal cell Chapter 2 Plasma membrane: chemical structure— lipids and proteins
	25-10-2021 to 30-10-2021	4	Chapter 3 Endomembrane system: protein targeting and sorting, transport, endocytosis and exocytosis Chapter 2. Structure and Function of Cell Organelles II in Animal Cell Cytoskeleton: microtubules, microfilaments, intermediate filaments
November -21	01-11-2021 to 06-11-2021	2	Mitochondria: Structure, oxidative phosphorylation; electron transport system Peroxisome and Ribosome: structure and function
	8-11-2021 to 13-11-2021	4	Chapter 3. Nucleus and Chromatin Structure Structure and function of nucleus in eukaryotes Chemical structure and base composition of DNA and RNA
	15-11-2021 to 20-11-2021	4	DNA supercoiling, chromatin organization, structure of chromosomes Types of DNA and RNA Chapter 4. Cell cycle, Cell Division and Cell Signaling Cell division: mitosis and meiosis Introduction to Cell cycle and its regulation apoptosis
	22-11-2021 to 27-11-2021	4	Signal transduction: intracellular signaling and cell surface receptors, via G-proteinlinked receptors Cell-cell interaction: cell adhesion molecules, cellular junction
December	29-11-2021 to 4-12-2021	4	Chapter 5. Mendelism and Sex Determination Basic principles of heredity: Mendel's laws- monohybrid cross and hybrid cross
	6-12-2021 to 11-12-2021	4	Complete and Incomplete Dominance Penetrance and expressivity Genetic Sex-Determining Systems, Environmental Sex Determination, Sex Determination and mechanism in <i>Drosophila melanogaster</i> .
	13-12-2021 to 18-12-2021	4	Sex-linked characteristics in humans and dosage compensation
January-22	20-12-2021 to 25-12-2021	3	Chapter 6. Extensions of Mendelism, Genes and Environment Extensions of Mendelism: Multiple Alleles, Gene Interaction: The Interaction Between Sex and Heredity:
	27-12-2021 to 01-01-2022	4	Sex-Influenced and Sex-Limited Characteristics Cytoplasmic Inheritance, Genetic Maternal Effects. Interaction between Genes and Environment:
	03-01-2022 to 08-01-2022	4	Environmental Effects on Gene Expression, Inheritance of Continuous Characteristics.
	10-01-2022 to 15-01-2022	3	Chapter 7. Human Chromosomes and Patterns of Inheritance Patterns of inheritance: autosomal dominance, autosomal recessive, X-linked recessive, X-linked dominant.
	17-01-2022 to 22-01-2022	4	Chromosomal anomalies: Structural and numerical aberrations with examples Human karyotyping and Pedigree analysis



February- 22	24-01-2022 to 29-01-2022	3	Chapter 8. Infectious Diseases Introduction to pathogenic organisms: viruses, bacteria, fungi, protozoa and worms.
	31-01-2022 to 05-02-2022	4	Structure, life cycle, pathogenicity, including diseases, causes, symptoms and control of common parasites: <i>Trypanosoma, Giardia and Wuchereria</i> .
	07-02-2022 to 12-02-2022	4	structure, life cycle, pathogenicity, including diseases, causes, symptoms and control of common parasites: <i>Giardia and Wuchereria</i> .
	14-02-2022 to 19-02-2022	4	Structure, life cycle, pathogenicity, including diseases, causes, symptoms and control of common parasites: <i>Wuchereria</i> .
	21-02-2022 to 26-02-2022	4	Revision
	28-02-2022	1	Revision

[Handwritten signature]

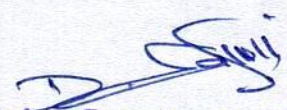
[Handwritten signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103

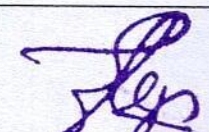
[Handwritten signature]
PRINCIPAL
Smt. ASM College
For Women, BALLARI.



DATE OF REOPENING :07-06-2021
Commencement of Classes :07-06-2021, 2,4,6 semester 6.1
Yunus Basha .N Assistant Professor
CELL BIOLOGY & DEVELOPMENTAL BIOLOGY

Month	Week	Hours	Syllabus to be covered
	06-05-21 to 15 -05-21	3	History of cell biology and its branches. Cell Theory
	17-05-21 to 22 -05-21	4	Study of light and electron microscope, cell fractionation, ultra structure of animal cell.
	24-05-21 to 31-05-21	3	Structure and functions of Plasma membrane, Mitochondria,
	01-06-21 to 05-06-21	4	Golgi complex, lysosomes, endoplasmic reticulum, Ribosomes, Nucleus., Centrioles, cytoskeletal elements
	07-06-21 to 12-06-21	5	Cell cycle: Mitosis and meiosis, regulations of cell cycle.
	14-06-21 to 19-06-21	3	Cell cycle: Mitosis and meiosis, regulations of cell cycle.
	21-06-21 to 30-06-21	3	Biology of cancer: Types of cancer,
	01-07-21 to 03-07-21	4	characteristics of cancer cell, carcinogenic agents (physical, chemical and biological)
	05-07-21 to 10-07-21	5	Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory.
	12-07-21 to 17-07-21	5	Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis
	19-07-21 to 24-07-21	3	Kinds of fertilization,
	26-07-21 to 31-07-21	3	approach of gametes, fertilization and antifertilization, acrosome reaction – cortical reaction
	02-08-21 to 07-08-21	4	Amphimixis, monospermic
	09-08-21 to 14-08-21	3	Polyspermic fertilization, significance of fertilization
	16-08-21 to 21-08-21	4	Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples
	23-08-21 to 28-08-21	6	Effect of yolk on cleavage
	30-08-21 to 04-09-21	3	Early development of frog: Structure of ovum, cleavage Early development of frog: blastulation and gastrulation.
	06-08-21 to 04-09-21	4	Early development of chick: Structure of hen's egg, cleavage
	06-09-21 to 11-09-21	3	blastulation, gastrulation origin and structure of primitive streak
	13-09-21 to	4	Early development of chick: structure of 2448 hours chick


 Assistant Professor
 of the Department of Zoology
 Smt. ASM College for Women,
 Ballari-583103.


PRINCIPAL
 Smt. ASM College
 For Women, BALLARI.

SMT. A.S.M. MEMORIAL COLLEGE FOR WOMEN, BELLARY.

TIME TABLE FOR THE YEAR 2009 - 2010

BOTANY

Days	8.00 - 8.50	8.55 - 9.45	9.50 - 10.40 MAN	11.00 - 11.50	11.55 - 12.45	12.50 - 1.40	2.30 - 3.30
Monday	← B.Sc I Sem B.Sc V Sem MAN - 03	practical 2 Batches B.Sc III Sem MAN - 04	MAN KVR Batches + KVR →	B.Sc I Sem KVR Lab			B.Sc V Sem KVR - 02
Tuesday	← B.Sc I Sem	practical MAN B.Sc V Sem KVR - 01	KVR Batches →			B.Sc I Sem MAN - Lab	
Wednesday	← B.Sc V Sem practical		MAN → B.Sc I Sem KVR - 04	B.Sc V Sem KVR - Lab			
Thursday	← B.Sc V Sem practical	B.Sc III Sem KVR - 03	MAN →			B.Sc V Sem KVR - Lab	B.Sc I Sem MAN - 02
Friday	← B.Sc B.Sc V Sem MAN	III Sem practical	KVR →			B.Sc III Sem MAN Lab	B.Sc V Sem MAN - 02
Saturday	← B.Sc	III Sem practical	KVR →				B.Sc V Sem MAN - 02

Head of the Department
M. G. NADAGOUDA
 M.Sc., M.Phil.
 H.O.D. of BOTANY

PRINCIPAL
Smt. ASM College
For Women, BELLARY.

MAN	TH + PR	Total
	08 + 12	→ 20 hours
KVR	08 + 12	→ 20 hours
	<u>Total</u>	<u>40 hours</u>

LESSON PLAN



DATE OF REOPENING :17-11-2020			
Commencement of Classes :17-12-2020, V semester Paper 5.2: Neha Naseeba S			
Month	Week	Hours	Syllabus to be covered

Month	Week	Hours	Syllabus to be covered
NOV-20	17-11-20 to 21-11-20	2	UNIT: I Definition and types of animal behavior Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation
	23-11-20 to 28-11-20	2	Learned behavior: Habituation, Imprinting Conditioned reflex and Insight learning
	01-12-20 to 05-12-20	1	Social organization in Honey bees
	07-12-20 to 12-12-20	2	Social organization in Termites & Macaques.
Dec -20	14-12-20 to 19-12-20	2	Unit II : 1.Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla
	21-12-20 to 26-12-20	2	Migration in birds- Methods of studying migration, preparation for migration
	28-12-20 to 31-12-20	2	Types of Bird Migration, Orientation and Navigation.
	01-01-2021 to 02-01-2021	2	2. Biological Clock :Introduction, Definition of chronobiology Biological clock, origin of biological clock various types of Rhythms.
	04-01-2021 to 09-01-2021	2	Unit III: Parental care in fishes. & amphibians
Jan -2021	11-01-2021 to 16-01-2021	1	Nesting behavior in birds- types of nests.
	18-01-2021 to 20-01-2021	2	Unit-IV Mimicry: definition, types of mimicry with examples. Coloration- types of coloration

Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103

(Neha Naseeba S)

Principal
Smt. ASM College For
BALLARI.

LESSON PLAN



DATE OF REOPENING :17-11-2020

Commencement of Classes :17-12-2020, I semester Biology of Non Chordates : Neha Nasebas

Month	Week	Hours	Syllabus to be covered
November	17-11-20 to 21-11-20	2	Phylum: Nematelminthes: General characters and classification up to classes with suitable examples Parasitic adaptation in helminthes.
	23-11-20 to 28-11-20	2	Unit -5. Phylum- Annelida: General characters and classification up to classes with suitable examples.
December	01-12-20 to 05-12-20	1	Unit :6. Phylum-Arthropoda: General characters of phylum
	07-12-20 to 12-12-20	2	classification up to classes with distinctive characters and suitable examples. Type Study of palaemon:- External
	14-12-20 to 19-12-20	2	Digestive System of prawn
	21-12-20 to 26-12-20	2	Nervous system of prawn and Mouth parts of (cockroach & butterfly)
	28-12-20 to 31-12-20	2	Unit :7. a. Phylum-Mollusca: General characters, classification up to classes with distinctive characters and suitable examples,
	01-01-2021 to 02-01-2021	2	Type study of unio- morphology. Digestive system of prawn
	04-01-2021 to 09-01-2021	2	Nervous system of prawn.
January	11-01-2021 to 16-01-2021	2	b. Phylum-Echinodermata: General characters of phylum,
	18-01-2021 to 23-01-2021	2	classification up to classes with distinctive characters and suitable examples.
	25-01-2021 to 30-01-2021	2	Larval forms of Echinodermata.

Head of the Department of Zoology
Smt. ASM College For Women
Ballari - 583103

Principal
Smt. ASM College For Women
BALLARI.

(Neha Nasebas)

Annual lesson plan.



DATE OF REOPENING :17-11-2020			
Commencement of Classes :17-12-2020, I semester Biology of Non Chordates :			
Lakshmi Sowjanya.V			
Month	Week	Hours	Syllabus to be covered
November 2020	17-11-20 to 21-11-20	01	Introduction to Non chordata : Principles of animal Classification- Five Kingdom classification, concept of species Animal nomenclature (Binomial and Trinomial)
	23-11-20 to 28-11-20	02	Phylum-Protozoa: General characters
December 2020	01-12-20 to 05-12-20	01	classification up to classes with suitable examples
	07-12-20 to 12-12-20	02	Structure and life cycle of plasmodium vivax
	14-12-20 to 19-12-20	02	Phylum - Porifera: General characters and
	21-12-20 to 26-12-20	02	classification up to classes with suitable examples
	28-12-20 to 31-12-20	02	Histology and spicules. Canal system in sponges
	01-01-2021 to 02-01-2021	02	Phylum-Coelenterata: General characters
January 2021	04-01-2021 to 09-01-2021	01	Classification up to classes with suitable examples.
	11-01-2021 to 16-01-2021	01	Morphology and life Cycle of Hydra.
	18-01-2021 to 23-01-2021	02	Phylum Platyhelminthes: General characters
	25-01-2021 to 30-01-2021	02	classification up to classes with suitable examples

Head of the Department of Zoology,
Smt. A.S.M. College for Women
BALLARI-583 103.

PRINCIPAL
Smt. ASM College For Women
BALLARI

2019-20

TEACHING PLAN Class : III Semester.



Date of reopening : 01-06-2019
 Commencement of Classes : 13-06-2019, Paper -3 Applied Zoology 32 Hrs

Month	Week	Hours	Syllabus to be covered
JUNE-19	12-06-19 to 22-06-19	1	Unit 1: Poultry: - Aim and scope of poultry,
	24-06-19 to 29-06-19	2	Poultry form management, poultry breeds in India
July-19	01-07-19 to 06-07-19	2	Rearing of broilers and layers. Nutritive value of Egg and poultry meat
	8-07-19 to 13-07-19	2	Write a note on poultry diseases [Nutritional poultry disease poly neuritis, viral disease – Ranikhet,
	15-07-19 to 20-07-19	2	Bacterial disease – Fowl cholera, protozoan disease – coccidiasis] Symptoms, Remedy and control
	22-07-19 to 27-07-19	2	Unit 5. Dairy Farming:- Importance, Scope of dairy farm animals. Breeds of cattle- Breeds of Cow- Gir, Sindhi, Jersey Holstein Friesian.
August-19	29-07-19 to 03-08-19	2	Breeds of Buffalo- Murrah, Surti, Nagpuri, Mehsana.
	05-08-19 to 10-08-19	2	Composition of milk, milk products, curd, Ghee Butter, Milk powder.
	13-08-19 to 17-08-19	2	Breeding programme to improve local breeds of cattle.
	19-08-19 to 24-08-19	2	Vermiculture: Vermiculture its concept and importance. Procedure of Vermiculture (Small scale large scale).
	26-08-19 to 31-09-19	2	Role of earthworm in soil fertility
September-19	03-09-19 to 07-09-19	2	Pearl culture: Microscopic structure of Shell. Pearl formation
	09-09-19 to 14-09-19	2	Women entrepreneurship in small Scale Industry
	16-09-19 to 21-09-19	2	Unit 7. Histology- Histological study of following organs: Thyroid, liver,
	23-09-19 to 27-09-19	2	Pancreas, stomach,
October-19	30-10-19 to 05-10-19	2	Testis, Ovary
	09-10-19 to 10-10-19	2	Revision

Molecular
 Genetic
 ation of
 ing
 and DNA
 in May
 of
 Sep 19

PRINCIPAL,
 SMT. A.S.M. COLLEGE FOR WOMEN,
 BALLARI.

Repaired in practice HS

Principal

Asso. Professor
 of the Department of Zoology
 Smt. A.S.M. College for Women
 BALLARI, 583 103

H.O.D.

PRINCIPAL,
 Smt A S M COLLEGE FOR WOMEN,
 BALLARI.


TEACHING PLAN Class :




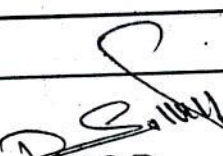
ours	Topic to be covered	Remarks
------	----------------------------	----------------

Date of reopening and Commencement of Classes 16-12-2019
Last date of completion: 15/04/2020

Month	Week	Hours	Syllabus to be covered
December 2019	16/12/19 to - 21/12/19		OOD
	22-12-2019 to 31-12-2019	1	Endocrine system: Functions of mammalian endocrine glands
JANUARY-20	1-12-19 to 11-01-20	1	pituitary
	13-01-20 to 18-01-20	1	thyroid, parathyroid,
	20-01-20 to 25-01-20	1	Pancreas, adrenals,
	27-01-20 to 02-02-20	1	testis, ovary,
FEBRUARY-20	03-02-20 to 08-02-20	1	placenta
	10-02-20 to 15-02-20	1	Hormonal changes in Women.
	17-02-20 to 22-02-20	1	Muscle contraction: Principle types of muscles.
	24-02-20 to 29-02-20	1	Ultrastructure of striated muscles,
	02-03-20 to 07-03-20	1	contractile proteins – myosin, actin, tropomyosin, troponin and actinin.–
MARCH-20	09-03-20 to 14-03-20	1	Mechanism of muscle contraction and relaxation -the sliding filament theory
	16-03-20 to 21-03-20	1	Nervous co-ordination: Structure of Neuron,
	23-03-20 to 28-03-20	1	Nature and conduction of nerve impulse
APRIL-20	30-03-20 to 04-04-20	1	synaptic transmission
	07-04-20 to 15-04-20	1	and Neuromuscular junction

	 Principal Smt. Allum Sumangalamma Memorial College for Women, Ballari-583103	


Asst./Asso. Professor


H.O.D.

Principal
 Principal
 Smt. Allum Sumangalamma Memorial
 College for Women, Ballari-583103

TEACHING PLAN Class :

Paper -6.2 .Ecology , Zoogeography and Wild life
Date of reopening and Commencement of Classes:21-12-2019
Last date of completion 15/04/2020



Month	Week	Hours	Syllabus to be covered
Dec 2020	16-12-2019 to 31-12-2019		OOD
	22-12-2019 to 31-12-2019	4	Definition, History, Ecology spectrum – Subdivision of Ecology – Scope of Ecology. Light – effect of light on animals, Temperature – thermal stratification – effect of temperature on animals, Adaptations to extreme temperature.
JANUARY-20	1-12-20 to 11-01-20	4	Mutualism, commensalism parasitism, ammensalism, predation and competition with relevant examples. Components and Functions of Ecosystem. Natural ecosystems and man engineered ecosystem. Laws of thermodynamics. Energy flow in ecosystem, types of food chains with examples, Food web, ecological pyramids.
	13-01-20 to 18-01-20	4	Study of pond as Typical Ecosystem –Zonation, abiotic components and biotic components Community structure, Ecological stratification – Ecotone& Edge effect. Ecological Niches.
	20-01-20 to 25-01-20	4	Marine habitat: Physico-Chemical Feature, ecological zonation and classification of marine biota, Ecological adaptations to pelagic water and Deep Sea, Estuarine habitat: Physico-Chemical Features and Biota. Mangroves.
	27-01-20 to 02-02-20	4	Fresh water habitat: Physico-Chemical Features of Lentic and lotic water bodies. Ecological adaptations of fresh water animals living in Lotic Water bodies
FEBRUARY-20	03-02-20 to 08-02-20	4	Terrestrial habitat – A brief account of biomes (Characteristics and fauna of Tundra, taiga, Grasslands, Savannas, chaparrals, Decidua's Forests and Deserts.). Faunal adaptations to Desert conditions
	10-02-20 to 15-02-20	4	Population density, Natality and Biotic potential – Allee's principle and Gause's principle Mortality, age distribution,
	17-02-20 to 22-02-20	4	population growth rate, population growth curves. Environment pollution: Definition, Pollutants and types of Pollution- Air Pollution,
	24-02-20 to 29-02-20	4	Water Pollution, Soil Pollution – Sources, effect and control
	02-03-20 to 07-03-20	4	Zoogeographical realms (with subdivision) of world, with climatic conditions and examples of characteristic fauna – brief account of Wallace's line
MARCH-20	09-03-20 to 14-03-20	4	Continuous and discontinuous distributions with examples – Barriers of dispersal – topographic and vegetative barriers, large bodies of water as barriers climatic barriers.
	16-03-20 to 21-03-20	4	Wild life fauna in the Himalayan ranges, the peninsular Indian sub region, Deccan plateau,
	23-03-20 to 28-03-20	4	Western Ghats, Eastern hill chain, the Indian desert, tropical rain forests, wild life in Andaman and Nicobar Islands.
APRIL-20	30-03-20 to 04-04-20	4	Definition, Wild life problems -Hunting, over harvesting, habitat loss, Pollution and Climate change. Importance of Wild Life Conservation and management. Ex-situ Conservation and In Situ Conservation Indian Board for Wildlife (IBWL), Wildlife Institute of India (WII), Central Zoo Authority of India (CZA), Bombay Natural History Society (BNHS), Project Tiger,
	07-04-20 to 15-04-20	4	Wild life (protection) Act 2072. World Wide Fund for Nature (WWF), Convention of international trade in endangered species of wild life flora and fauna. CITES), (Ramsar convention, Convention on Biological Diversity (CBD), Trade Record Analysis of Flora & Fauna in Commerce (TRAFFIC) IUCN- Red Data Book,

P. Sallu
Asst./Asso. Professor

D. Sathy
H.O.D.

[Signature]
Principal
Smt. ASM College
For Women, Ballari.


TEACHING PLAN Class :



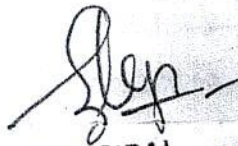
DATE OF REOPENING : 01-06-2019

Commencement of Classes :12-06-2019, V semester Genetics : D. Satheesh

Month	Week	Hours	Syllabus to be covered
JUNE-19	12-06-19 to 22-06-19 Valuation duty 6 days	2	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology,
	24-06-19 to 29-06-19	4	Chromosomes: Chromosome number, size chromosomal morphology, and types. Structure and models. Heterochromatin and euchromatin. Giant chromosomes - polytene and lamp brush chromosomes.
July-19	01-07-19 to 06-07-19	4	Nucleic acids and protein biosynthesis: Introduction: Identification of genetic material – Griffith’s experiment Chemistry of nucleic acids, structure of DNA .Watson and crick DNA model, replication of DNA. Forms of DNA.
	8-07-19 to 13-07-19	4	Types of RNA. Genetic code, properties of genetic code, wobble hypothesis, mechanism of protein biosynthesis.
	15-07-19 to 20-07-19	4	Interaction of genes: Supplementary factors -9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte. Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 – Coat colour in mouse
	22-07-19 to 27-07-19	4	Complementary factors - 9 : 7, flower colour in sweet peas, Multiple factors / polygenic inheritance –Skin Colour in Man. Lethal gene - Coat colour in mice.
August-19	29-07-19 to 03-08-19	4	Multiple Alleles: Characteristics of Multiple Alleles, Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect.
	05-08-19 to 10-08-19	3	Linkage and Crossing over: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man,
	13-08-19 to 17-08-19	3	Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern’s Experiment on Drosophila), Significance of Crossing over
	19-08-19 to 24-08-19	4	Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, Gynandromorphy and intersexes Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophilia and colour blindness in man. Sex linkage in poultry, Y linked genes
	26-08-19 to 31-08-19	4	Mutations: Chromosomal aberrations- Human Diseases: Klinefelter’s Syndrome, Turner’s syndrome, Edwards Syndrome, Patau syndrome Chi- du – chart syndrome and Down’s syndrome (Mongolism),..


Asst / Asso. Professor
 Head of the Department of Zoology,
 Smt. A.S.M. College for Women
 BALLARI-583 103

H.O.D.


PRINCIPAL,
 Smt A S M COLLEGE FOR WOMEN,
 BALLARI.

TEACHING PLAN Class :

Hours	Topic to be covered	Remarks
-------	---------------------	---------



September-19	03-09-19 to 07-09-19	3	Gene mutations – Types of gene mutation and Molecular basis of gene mutations
	09-09-19 to 14-09-19	4	Human genetics and eugenics: Common human genetic disorders Inborn errors of metabolism: Albinism, Phenylketonuria, Alkaptonuria, Sickle cell anemia, Thalassemia, Huntington's chorea, Eugenics.
	16-09-19 to 21-09-19	4	Genetic engineering and biotechnology: Introduction. Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence, Cloning Vectors-Plasmids, Gene Cloning)
	23-09-19 to 27-09-19	3	Production of insulin by r DNA technology, PCR and DNA fingerprinting. DNA vaccines.
October-19	30-09-19 to 10-10-19	4	Applications of genetic engineering in Medicine, food technology and agriculture. Useful and harmful effect of biotechnology

From hand
 preparing
 on 14/9
 month of
 Sep 19

Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103

PRINCIPAL,
Smt A S M COLLEGE FOR WOMEN
BALLARI.

Asst./Asso. Professor

H.O.D.

Principal



Date of reopening and Commencement of Classes 16-12-2019			
Last date of completion: 15/04/2020			
Month	Week	Hours	Syllabus to be covered
December 2019	16/12/19 to - 27/12/19		OOD
	22-12-2019 to 31-12-2019	2	Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory.
JANUARY-20	1-12-19 to 11-01-20	3	Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis
	13-01-20 to 18-01-20	3	Kinds of fertilization, approach of gametes, fertilization and antifertilization
	20-01-20 to 25-01-20	3	acrosome reaction – cortical reaction, Amphimixis, monospermic polyspermic fertilization, significance of fertilization
	27-01-20 to 02-02-20	3	Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples Effect of yolk on cleavage
FEBRUARY-20	03-02-20 to 08-02-20	3	Early development of frog: Structure of ovum, cleavage blastulation and gastrulation.
	10-02-20 to 15-02-20	3	Early development of chick: Structure of hen's egg, cleavage blastulation,
	17-02-20 to 22-02-20	3	gastrulation, origin and structure of primitive streak
	24-02-20 to 29-02-20	3	Early development of chick: structure of 24
	02-03-20 to 07-03-20	3	48 hours chick embryos. Extra embryonic membranes.
MARCH-20	09-03-20 to 14-03-20	3	Structure of sperm and ovum, ovulation, cleavage morula, blastocyst and implantation.
	16-03-20 to 21-03-20	3	Placenta: Morphological and histological classifications of placenta with examples
	23-03-20 to 28-03-20	3	Placenta: structure and functions of placenta – yolk sac placenta, allantoic placenta.
APRIL-20	30-03-20 to 04-04-20	3	Modern trends in human reproduction: Sperm bank, IVF, cloning, surrogate mother
	07-04-20 to 15-04-20	3	multiple births – twins. Revision

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

Principal

Smt. Allum Sumangalamma Memorial
Ballari-583103



Date of reopening and Commencement of Classes 16-12-2019			
Last date of completion: 15/04/2020			
Month	Week	Hours	Syllabus to be covered
December 2019	16/12/19 to - 27/12/19		OOD
	22-12-2019 to 31-12-2019	2	Introduction:- Branches of Physiology, Scope of physiology
JANUARY-20	1-12-19 to 11-01-20	2	Digestion:- Mechanical digestion and chemical digestion
	13-01-20 to 18-01-20	2	Digestion of proteins, carbohydrates and lipids.
	20-01-20 to 25-01-20	2	Digestion of carbohydrates and lipids.
	27-01-20 to 02-02-20	2	Respiration:- External and internal respiration and
FEBRUARY-20	03-02-20 to 08-02-20	2	- Respiratory pigments Hemoglobin,
	10-02-20 to 15-02-20	2	Haemocyanin, haemoerythrin.
	17-02-20 to 22-02-20	2	Transport of O ₂ and CO ₂
	24-02-20 to 29-02-20	2	Circulation:- Type of circulation- neurogenic and myogenic hearts.
	02-03-20 to 07-03-20	2	structure, functions and regulation of human heart,
MARCH-20	09-03-20 to 14-03-20	2	bloodpressure, composition of human blood, 08
	16-03-20 to 21-03-20	2	Nitrogen excretion:- Nitrogen excretion in aquatic and terrestrial animals-
	23-03-20 to 28-03-20	2	Ammonotelism and ureotelism and uricotelism with example.
	30-03-20 to 04-04-20	2	Physiology of urine formation.
APRIL-20	07-04-20 to 15-04-20	2	Ornithine cycle.

[Handwritten signature]

[Handwritten signature]

[Handwritten signature]

Date of Reopening 16-12-2019
Commencement of Classes VI semester :16-12-2019
B.Sc. VI Semester paper 6.1

Month	Week	Hours	Syllabus to be covered
December 19	16-12-18 to 21-12-18	01	History of cell biology and its branches.
	23-12-18 to 28-12-19	01	Cell Theory
Jan 20	30-12-19 to 4-01-20	01	Study of light microscope
	6-01-20 to 11-01-20	01	Study of electron microscope
	13-01-20 to 18-01-20	01	cell fractionation
	20-01-20 to 25-01-20	01	ultra structure of animal cell
	27-01-20 to 31-01-20	01	Cell organelles Structure and functions of Plasma membrane
Feb 20	3-02-20 to 8-02-20	01	Mitochondria,
	10-02-20 to 15-02-20	01	Golgi complex
	17-02-20 to 22-02-20	01	Lysosomes
	24-02-20 to 29-02-20	01	Endoplasmic reticulum
Mar 20	02-03-20 to 07-03-20	01	Ribosomes,
	09-03-20 to 14-03-20	01	Nucleus.
	16-03-20 to 21-03-20	01	Centrioles, cytoskeletal elements
	23-03-20 to 28-03-20	01	Cell cycle: Mitosis& meiosis,
April 20	30-03-20 to 04-04-20	01	meiosis and regulations of cell cycle
	06-04-20 to 11-04-20	01	Biology of cancer: Types of cancer,& characteristics of cancer cell,
	13-04-20 to 18-04-20	01	carcinogenic agents (physical, chemical and biological)

[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103

[Signature]
Principal
Smt. ASM College
For Women, Ballari

Date of Reopening 16-12-2019
Commencement of Classes IV semester :16-12-2019
B.Sc. IV Semester paper 4.1



Month	Week	No of Hrs	Syllabus to be covered
December 19	16-12-18 to 21-12-18	01	Enzymes -Introduction
	23-12-18 to 28-12-19	01	Classification of enzymes (IUB system),
	30-12-19 to 4-01-20	01	Mechanism of enzyme catalyzed
Jan 20	6-01-20 to 11-01-20	01	Action lock and key method,.
	13-01-20 to 18-01-20	01	Induced fit hypothesis
	20-01-20 to 25-01-20	01	Specificity of enzymes
Feb 20	27-01-20 to 31-01-20	01	Reversibility of enzyme action
	3-02-20 to 8-02-20	01	Enzyme inhibitors
	10-02-20 to 15-02-20	01	Cofactors
Mar 20	17-02-20 to 22-02-20	01	Vitamins: Fat soluble Vitamins (A and D) functions and deficiency symptoms.
	24-02-20 to 29-02-20	01	Fat soluble Vitamins (E and K) functions and deficiency symptoms.
	02-03-20 to 07-03-20	01	Water soluble Vitamins (B complex) functions and deficiency symptoms.
	09-03-20 to 14-03-20	01	Water soluble vitamins (vitamin C) functions and deficiency symptoms.
	16-03-20 to 21-03-20	01	Revision
April 20	23-03-20 to 28-03-20	01	Revision
	30-03-20 to 04-04-20	01	Revision
	06-04-20 to 11-04-20	01	Revision
	13-04-20 to 18-04-20	01	Revision

Head of the Department of Zoology
 Smt. A.S.M. College for Women
 BALLARI-583 103.

Principal
 Smt. ASM College
 For Women, Ballari.

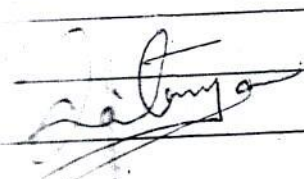
Month	Week	Hours	Syllabus to be covered
	Date of reopening :01-06-2018 Commencement of Classes :11-06-2018		
JUNE-18	12-06-19 to 22-06-19	02	Apiculture: Honey bee morphology, mouth parts, honey sac, wax glands, types of different species and races
	24-06-19 to 29-07-19	02	Management of bee keeping (modern method) Economic important of honey, wax, pollen, venom and bee pollination
July-18	01-07-19 to 06-07-19	02	A note on production on honey, its chemical composition and honey bee diseases.
	8-07-19 to 13-07-19	02	Brief history and concept of sericulture : Moriculture, different types of mulberry (<i>Morus alba</i> , <i>Morus codifelia</i> , <i>Morus indica</i> , <i>Morus nigra</i>).
	15-07-19 to 20-07-19	02	1. Grainage – grainage activities Silk worm rearing
	22-07-19 to 27-07-19	02	2. Postharvest technology
August-18	5-07-19 to 10-08-19	02	Life cycle of <i>Bombyx mori</i> , environmental condition needed for rearing,
	13-08-19 to 17-08-19	02	modern method of rearing house,
	19-08-19 to 24-08-19	02	rearing equipments chawki, worm and adult worm rearing methods.
	26-08-19 to 31-08-19	02	Non mulberry silk worm (ex. Muga and Tasar)
	3-09-19 to 7-09-19	02	Silk worm pests and predators
September-18	9-09-19 to 14-09-19	02	A note on silk worm diseases.) Bacterial diseases (Digestive track) Muscardine (white or green)
	16-09-19 to 21-09-19	02	muscardine protozoan diseases (Pebrine), and viral diseases (Grasseria).
	23-09-19 to 27-09-19	02	Aquaculture: Principle, scope, techniques
	30-09-19 to 10-10-19	02	Importance of culturing economically important aquatic animals.
October-18	01-10-18 to 06-10-18	02	. Brief account of Indian major carps and fresh water prawn Induced breeding of major carps and seed fish
	08-10-18 to 13-10-18	02	Endocrine regulation of fish reproduction. A note on fish by products and fish diseases
	15-10-18 to 20-10-18	02	Revision
	22-10-18 to 27-10-18	02	Revision


PRINCIPAL,

Smt. A S M COLLEGE FOR W
BALLARI.

DATE OF REOPENING : 01-06-2019
 Commencement of Classes : 12-06-2019, V semester Ethology and Evolution - HS Chaitanya

Month	Week	Hours	Syllabus to be covered
JUNE-19	12-06-19 to 22-06-19	4	Introduction to evolution: Theories of organic evolution: Lamarckism and neo-Lamarckism. Darwin- Wallace theory of natural selection
	24-06-19 to 29-06-19	4	Synthetic theory of evolution. Gene mutation, gene flow, genetic drift, isolation,
July-19	01-07-19 to 06-07-19	4	Natural selection and Hardy- Weinberg equilibrium. Speciation : concepts of species, Sympatric and allopatric speciation
	8-07-19 to 13-07-19	4	Microevolution, macroevolution, Fossils and Fossilization, Types of Fossils, Significance of fossils
	15-07-19 to 20-07-19	4	. Origin and evolution of man.
August-19	22-07-19 to 27-07-19	4	Definition and types of animal behavior: Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation,
	29-07-19 to 03-08-19	4	Learned behavior: Habituation, Imprinting, Conditioned reflex and Insight learning.
	05-08-19 to 10-08-19	4	Social organization: Social organization in Honey bees, Termites and Macaques
	13-08-19 to 17-08-19	2	Migratory behavior: Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla.
	19-08-19 to 24-08-19	4	Migration in birds- Methods of studying migration, preparation for migration, Types of Bird Migration, Orientation and Navigation.
	26-08-19 to 31-09-19	4	Biological Clock : Introduction, Definition of chronobiology Biological clock, origin of biological clock, various types of Rhythms.
September 19	03-09-19 to 07-09-19	3	Courtship Behavior: Definition, General principles courtship in scorpions and peacock
	09-09-19 to 14-09-19	4	Parental care in fishes. Parental care amphibians
	16-09-19 to 21-09-19	4	Nesting behavior in Birds: Nesting behavior in Birds - Types of Nests.
	23-09-19 to 27-09-19	4	Mimicry: Definition, types of mimicry, protective, aggressive and warning mimicry with suitable examples.
	30-09-19 to 10-10-19	2	coloration – types of coloration


 Head of the Department of Zoology,
 Smt. A.S.M. College for Women
 BALLARI-583 103.


 PRINCIPAL,
 Smt. A.S.M. COLLEGE FOR WOMEN
 BALLARI.



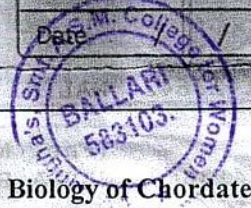
DATE OF REOPENING : 16-12-2019
Commencement of Classes II sem :16-12-2019, II Sem paper : Biology of Chordates
-Chaitanya.H S

Month	Week	Hours	Syllabus to be covered
December 19	16-12-18 to 21-12-18	2	Chordate-Introduction, General characters of chordate
	23-12-18 to 28-12-19	2	Outline Classification of the Phylum Chordata up to classes with examples
Jan 20	30-12-19 to 4-01-20	2	GC of Sub Phylum Urochordata, Cephalochordata
	6-01-20 to 11-01-20	2	GC of vertebrata and class Cyclostomata (GC)
	13-01-20 to 18-01-20	2	Cyclostomta with examples- General organization of Petromyzon.
	20-01-20 to 25-01-20	2	General organization of Petromyzon. Introduction to Aves.
	27-01-20 to 31-01-20	2	GC of Aves and classification.
Feb 20	3-02-20 to 8-02-20	2	Classification of aves with examples upto orders.
	10-02-20 to 15-02-20	2	Flight adaptation of birds.
	17-02-20 to 22-02-20	2	Economic importance of birds. Introduction to Mammals.
	24-02-20 to 29-02-20	2	GC of Mammals and classification upto sub classes. with suitable examples.
Mar 20	02-03-20 to 07-03-20	2	Classification of Mammals. Study of Rat- Morphology
	09-03-20 to 14-03-20	2	Digestive system of Rat.
	16-03-20 to 21-03-20	2	Study of Arterial & Venous system.
	23-03-20 to 28-03-20	2	Reproductive system of Rat in female.
	30-03-20 to 04-04-20	2	Reproductive system of Rat in male.
April 20	06-04-20 to 11-04-20	2	Revision
	13-04-20 to 18-04-20	1	Revision

Chaitanya.H S

Head of the Department of Zoology,
Smt. A.S.M. College for Women
BALLARI-583 103.

Principal
Smt. ASM College
For Women, Ballari



DATE OF REOPENING : 16-12-2019

Commencement of Classes II semester :16-12-2019, II Sem paper: Biology of Chordates and Osteology. - Neha Naseeba.S

Month	Week	Hours	Syllabus to be covered
December 19	16-12-18 to 21-12-18	2	Chordate-introduction, Pisces: General characters
	23-12-18 to 28-12-19	1	classification of Osteichthyes with suitable examples
	30-12-19 to 4-01-20	2	Classification of Chondrichthyes with suitable examples
Jan 20	6-01-20 to 11-01-20	2	Types of scales and Fins in fishes.
	13-01-20 to 18-01-20	1	Amphibia: General characters
	20-01-20 to 25-01-20	2	Classification up to [living only] orders with suitable examples.
	27-01-20 to 31-01-20	2	Ecology and distribution of Hyla, Bufo,
	3-02-20 to 8-02-20	2	Ecology and distribution of Salamander, Ichthyophis
Feb 20	10-02-20 to 15-02-20	2	Reptilia: General characters and classification
	17-02-20 to 22-02-20	2	Classification up to orders [living orders only] with suitable examples.
	24-02-20 to 29-02-20	2	Key identification of poisonous and non- poisonous snakes in India
	02-03-20 to 07-03-20	2	Poisonous [Cobra, Hydrophis]
Mar 20	09-03-20 to 14-03-20	2	Non Poisonous [Python, Typhlop] snakes of India
	16-03-20 to 21-03-20	2	Osteology: Frog -Axial skeleton
	23-03-20 to 28-03-20	2	Frog - Appendicular skeleton
	30-03-20 to 04-04-20	2	Osteology: Rabbit - Axial skeleton
April 20	06-04-20 to 11-04-20	2	Rabbit - Appendicular skeleton
	13-04-20 to 18-04-20	1	Revision

Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.

Principal
Smt. ASM College
For Women, Ballari

Neha Naseeba S

SEMESTER - I

THEORY Syllabus for paper Z.1

BIOLOGY OF NON-CHORDATA

56 hrs



Unit -1. a. Introduction to Non chordata :

Principles of animal Classification- Five Kingdom classification, concept of species Animal nomenclature (Binomial and Trinomial)

b. Phylum-protzoa:

General characters of phylum and classification up to classes with distinctive characters and suitable examples. Structure and life history of plasmodium vivax. 08Hrs

Unit:2. Phylum-Porifera:

General characters of phylum and classification up to classes with distinctive characters and suitable examples. Histology of Sponges, canal system is sponges. 08 Hrs

Unit :3. Phylum-Coelenterata:

General characters of phylum and classification up to classes with distinctive characters and suitable examples, Morphology and life cycle of Hydra. 08 Hrs

Unit :4. a. Phylum-platyhelminthes:

General characters of phylum and classification up to classes with distinctive characters and suitable examples.

b. Phylum-Nematoda:

General characters with suitable examples, parasitic adaptations of Helminthes 08Hrs

Unit :5. Phylum-Annelida:

General characters of phylum and classification up to classes with distinctive characters and suitable examples.

Type Study Earthworm [External, Digestive and Nervous] 8 Hrs

Unit :6. Phylum-Arthropoda:

General characters of phylum and classification up to classes with distinctive characters and suitable examples. Mouth parts of (cockroach & butterfly) Type Study of palaemon:- External digestive and Nervous system 08 Hrs

Unit :7. a. Phylum-Mollusca:

General characters of phylum and classification up to classes with distinctive characters and suitable examples, Type study of unio- morphology digestive and nervous system.

b. Phylum-Echinodermata:

General characters of phylum and classification up to classes with distinctive characters and suitable examples. Larval forms of Echinodermata. 08 Hrs

Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.

PRINCIPAL.

Smt A S M COLLEGE FOR WOMEN
BALLARI.

DATE OF REOPENING : 01-06-2019			
Commencement of Classes :20-06-2019, I semester Biology of Non Chordates : Neha Naseeba			
Month	Week	Hours	Syllabus to be covered
JUNE-19	20-06-19 to 29-06-19	5	Introduction to Non chordata : Principles of animal Classification- Five Kingdom classification, concept of species Animal nomenclature (Binomial and Trinomial)
	01-07-19 to 06-07-19	4	Phylum-Protozoa: General characters and classification up to classes with suitable examples
July-19	8-07-19 to 13-07-19	4	Phylum - Porifera: General characters and classification up to classes with suitable examples
	15-07-19 to 20-07-19	4	Histology and spicules. Canal system in sponges
	22-07-19 to 27-07-19	4	Phylum-Coelenterata: General characters Classification up to classes with suitable examples.
August-19	29-07-19 to 03-08-19	4	Formation and types of Coral reefs Structure and life Cycle of Hydra
	05-08-19 to 10-08-19	4	Phylum Platyhelminthes: General characters and classification up to classes with suitable examples
	13-08-19 to 17-08-19	2	Parasitic adaptations of Helminthes.
	19-08-19 to 24-08-19	4	Phylum: Nematelminthes: : General characters and classification up to classes with suitable examples
	26-08-19 to 31-09-19	4	Phylum- Annelida: General characters and classification up to classes with suitable examples.
September-19	03-09-19 to 07-09-19	3	<i>Pheretima posthuma</i> : External Digestive Nervous system
	09-09-19 to 14-09-19	4	Unit :6. Phylum-Arthropoda: General characters of phylum classification up to classes with distinctive characters and suitable examples.
	16-09-19 to 21-09-19	4	Type Study of palaemon:- External, digestive System and Nervous system,)
	23-09-19 to 27-09-19	3	Mouth parts of (cockroach & butterfly Unit :7. a. Phylum-Mollusca: General characters, classification up to classes with distinctive characters and suitable examples,
October-19	30-09-19 to 05-10-19	4	Type study of unio- morphology. digestive and nervous system
	09-10-2019 to 12-10-2019	4	b. Phylum-Echinodermata: General characters of phylum, .classification up to classes with distinctive characters and suitable examples.
	14-10-2019 to 19-10-2019	4	Larval forms of Echinodermata.

[Signature]
 PRINCIPAL,


Smt A S M COLLEGE FOR WOMEN
 BALLARI.

[Signature]
 Head of the Department of Zoology,
 Smt. A.S.M. College for Women
 BALLARI-583 103



Date of Reopening 21-12-2018
Commencement of Classes VI semester :21-12-2018
B.Sc. VI Semester paper 6.1

Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	History of cell biology and its branches. Cell Theory
	31-12-18 to 05-01-19	2	Study of light and electron microscope
Jan 19	7-01-19 to 12-01-19	2	cell fractionation, ultra structure of animal cell.
	15-01-19 to 19-01-19	2	Cell organelles Structure and functions of Plasma membrane
	21-01-19 to 25-01-19	2	Mitochondria, Golgi complex
	28-01-19 to 02-02-19	2	Lysosomes, endoplasmic reticulum
Feb 19	04-02-19 to 09-02-19	2	Ribosomes, Nucleus
	11-02-19 to 16-02-19	2	Centrioles, cytoskeletal elements
	18-02-19 to 23-02-19	2	Cell cycle: Mitosis & meiosis
	25-02-19 to 02-03-19	2	meiosis and regulations of cell cycle
Mar 19	05-03-19 to 09-03-19	2	Biology of cancer: Types of cancer, & characteristics of cancer cell,
	11-03-19 to 16-03-19	2	carcinogenic agents (physical, chemical and biological)& Reproductive system and Early development of human: Menstrual cycle and its regulation
	18-03-19 to 23-03-19	2	Structure of sperm and ovum, ovulation, cleavage
	25-03-19 to 30-03-19	2	morula, blastocyst and implantation. Placenta introduction
April 19	01-04-19 to 05-04-19	2	Placenta: Morphological and histological classifications of placenta with examples
	08-04-19 to 13-04-19	2	Placenta: structure and functions of placenta – yolk sac placenta, allantoic placenta.
	15-04-19 to 20-04-19	2	Modern trends in human reproduction: Sperm bank, IVF, cloning, surrogate mother
	21-04-19 to 22-04-19	2	Multiple births – twins. Revision


Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.


Principal
Smt. Allum Sumangamma Memorial
College for Women, Ballari-583103



4. Miss. Chaitanya HS Guest Lecturer in Zoology

Date of Reopening 21-12-2018			
Commencement of Classes II semester :21-12-2018			
B.Sc. II Semester paper 2.1			
Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	Introduction General characters of chordata
	31-12-18 to 05-01-19	2	Outline classification of the Phylum Chordata up to classes with examples
Jan 19	7-01-19 to 12-01-19	2	GC of sub phylum urochordata, cephalochordata
	15-01-19 to 19-01-19	2	GC of vertebrata and class Cyclostomata with examples-
	21-01-19 to 25-01-19	2	General organization of Petromyzon.
	28-01-19 to 02-02-19	2	Introduction to aves GC of Aves
Feb 19	04-02-19 to 09-02-19	2	Classification of aves with examples upto orders. Flight adaptation of birds
	11-02-19 to 16-02-19	2	Flight adaptation of birds
	18-02-19 to 23-02-19	2	Economic importance of birds.
	25-02-19 to 02-03-19	2	General characters of Mammalia
Mar 19	05-03-19 to 09-03-19	2	classification upto sub classes with suitable examples
	11-03-19 to 16-03-19	2	Study of rat- morphology and digestive system
	18-03-19 to 23-03-19	2	Study of digestive system and arterial & venous system
	25-03-19 to 30-03-19	2	Atrial & venous system
April 19	01-04-19 to 05-04-19	2	Female Reproductive system of rat
	08-04-19 to 13-04-19	2	Male reproductive system of rat.
	15-04-19 to 20-04-19	2	Revision
	21-04-19 to 22-04-19	2	Revision

[Signature]
 Head of the Department of Zoology,
 Smt. A.S.M. College for Women
 BALLARI-583 103.

[Signature]
 Principal
 Smt. Allum Sumangamma Memorial
 College for Women, Ballari-583103



Date of Reopening 21-12-2018
 Commencement of Classes II semester :21-12-2018
 B.Sc. II Semester paper 2.1

Month	Week	Hours	Syllabus to be covered
Decemb er 18	21-12-18 to 29-12-18	2	Pisces: General characters
	31-12-18 to 05-01-19	2	classification with suitable examples of Oestichthyes and
Jan- 19	7-01-19 to 12-01-19	2	Classification of Chondryichthyes
	15-01-19 to 19-01-19	2	Amphibia: General characters
	21-01-19 to 25-01-19	2	classification up to [living only] orders with suitable examples.
	28-01-19 to 02-02-19	2	classification up to [living only] orders with suitable examples.
Feb 19	04-02-19 to 09-02-19	2	Ecology and distribution of Amphibia.
	11-02-19 to 16-02-19	2	Hyla, Bufo, Salamander, Ichtyophis
	18-02-19 to 23-02-19	2	Reptilia: General characters and classification up to orders
March 19	25-02-19 to 02-03-19	2	living orders only] with suitable examples.
	05-03-19 to 09-03-19	2	Structure and Poison apparatus of Cobra.
	11-03-19 to 16-03-19	2	Poisonous [Krait, Viper,Cobra, Hydrophis]
	18-03-19 to 23-03-19	2	Non Poisonous [Python, Typhlop, Natrix, Eryx] snakes of India
	25-03-19 to 30-03-19	2	Osteology: frog – Axial Skeleton
April 19	01-04-19 to 05-04-19	2	appendicular Skeleton
	08-04-19 to 13-04-19	2	Osteology of rabbit. Axial Skeleton
	15-04-19 to 20-04-19	2	Appendicular Skeleton
	21-04-19 to 22-04-19	2	Revision


[Signature]
 Head of the Department of Zoology,
 Smt. A.S.M. College for Women
 BALLARI-583 103.

[Signature]
 Principal
 Smt. Alim Sumangamma Memorial
 College for Women, Ballari-583103

3. Miss. Neha Naseeba Guest Lecturer in Zoology



Date of Reopening 21-12-2018			
Commencement of Classes VI semester :21-12-2018			
B.Sc. VI Semester paper 6.1			
Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory.
	31-12-18 to 05-01-19	2	Spermatogenesis and oogenesis – comparison between spermatogenesis and oogenesis
Jan-19	7-01-19 to 12-01-19	2	Kinds of fertilization,
	15-01-19 to 19-01-19	2	approach of gametes, fertilization and anti fertilization, acrosome reaction – cortical reaction
	21-01-19 to 25-01-19	2	Amphimixis, monospermic
	28-01-19 to 02-02-19	2	polyspermic fertilization, significance of fertilization
Feb 19	04-02-19 to 09-02-19	2	Types of cleavage – Holoblastic, meroblastic, radial and spiral types with examples
	11-02-19 to 16-02-19	2	Effect of yolk on cleavage
	18-02-19 to 23-02-19	2	Early development of frog :Structure of ovum, cleavage
March 19	25-02-19 to 02-03-19	2	Early development of frog : blastulation and gastrulation.
	05-03-19 to 09-03-19	2	Early development of chick: Structure of hen's egg, cleavage
	11-03-19 to 16-03-19	2	blastulation, gastrulation
	18-03-19 to 23-03-19	2	origin and structure of primitive streak
	25-03-19 to 30-03-19	2	Early development of chick: structure of 24
April 19	01-04-19 to 05-04-19	2	48 hours chick embryos.
	08-04-19 to 13-04-19	2	Extra embryonic membranes.
	15-04-19 to 20-04-19	2	Revision
	21-04-19 to 22-04-19	2	Revision



 Head of the Department of Zoology
 Smt. A.S.M. College for Women
 BALLARI-583 103.


 Principal
 Smt. Allum Sumangalamma Memorial
 College for Women, Ballari-583103

2. Miss. Lakshmin Sowjanya , Guest Lecturer in Zoology



Date of Reopening 21-12-2018 Commencement of Classes IV semester :21-01-2018 B.Sc. IV Semester paper 4.1			
Month	Week	No of Hrs	Syllabus to be covered
December 18	21-12-18 to 29-12-18	02	Introduction: Branches of physiology, scope of physiology
	31-12-18 to 05-01-19	02	Digestion: Mechanical digestion and chemical digestion- Digestion and absorption of proteins
	7-01-19 to 12-01-19	02	Digestion and absorption of carbohydrates and lipids
Jan -19	15-01-19 to 19-01-19	01	Respiration: External and internal respiration – Respiratory pigments Hemoglobin, haemocyanin and haemoerythrin.
	21-01-19 to 25-01-19	02	Physiology of respiration – exchange of gases, transport of O ₂ , oxygen dissociation curves – Borh's effect,
	28-01-19 to 02-02-19	02	transport of CO ₂ , chloride shift, respiratory quotient
Feb- 19	04-02-19 to 09-02-19	02	Circulation: Types of circulation – structure, functions and regulation of human heart
	11-02-19 to 16-02-19	02	Blood pressure, composition of human blood, neurogenic and myogenic hearts.
	18-02-19 to 23-02-19	02	Nitrogen excretion in aquatic and terrestrial animals – Ammonotelism and ureotelism and uricotelism with examples.
March 19	25-02-19 to 02-03-19	02	Ornithine (Urea) cycle. Physiology of urine formation
	05-03-19 to 09-03-19	02	. Enzymes : Classification of enzymes (IUB system),
	11-03-19 to 16-03-19	02	Mechanism of enzyme catalyzed action – lock and key method, induced fit hypothesis.
	18-03-19 to 23-03-19	02	Specificity of enzymes, reversibility of enzyme action,
	25-03-19 to 30-03-19	02	enzyme inhibitors, cofactors
April 19	01-04-19 to 05-04-19	02	Vitamins: Fat soluble vitamins (A,D,E and K) functions and deficiency symptoms.
	08-04-19 to 13-04-19	02	Water soluble vitamins (B complex and vitamin C) functions and deficiency symptoms.
	15-04-19 to 20-04-19	02	Revision
	21-04-19 to 22-04-19	02	Revision


Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.


Principal
Smt. Allum Sumangamma Memorial
College for Women, Ballari, 583103.



Date of reopening and Commencement of Classes:21-12-2018			
Last date of completion 22/04/2019			
Month	Week	Hours	Syllabus to be covered
December 2018	21-12-2018 to 29-12-2018	2	Muscle contraction: Principle types of muscles. Ultrastructure of striated muscles,
	31-12-18 to 05-01-19		contractile proteins – myosin, actin, tropomyosin, troponin and actinin.–
JANUARY-19	07-01-19 to 12-01-19	2	Mechanism of muscle contraction and relaxation the sliding filament theory
	15-01-19 to 19-01-19	2	Nervous co-ordination: Nature and conduction of nerve impulse
	21-01-19 to 25-01-19	2	Neuromuscular and synaptic transmission junction neurotransmitters
	28-01-19 to 02-02-19	2	Endocrine system: Functions of mammalian endocrine glands pituitary, thyroid,
FEBRUARY-19	04-02-19 to 09-02-19	2	parathyroid, testis, ovary,
	11-02-19 to 16-02-19	2	pancreas, adrenals, placenta and pineal gland.
	18-02-19 to 23-02-19	2	Hypothalamus and its stimulatory and inhibitory hormones.
	25-02-19 to 02-03-19	2	Immunology: Introduction
	05-03-19 to 09-03-19	2	Immune system – General characteristic organs and cells of immune system, bone - marrow,–
MARCH-19	11-03-19 to 16-03-19	2	primary lymphoid organ – Bursa of Fabricius, thymus, Payer's patches- T and B cells
	18-03-19 to 23-03-19	2	Antigens and antigenicity – immunoglobulin structure of immunoglobulin G(IgG) and immunization,.
	25-03-19 to 30-03-19	2	AIDS – Causative factors, effects and preventive measures
	01-04-19 to 05-04-19	2	BIOENERGETICS: Concept of Bioenergetics, free energy changes, glycolysis Bioenergetics of glycolysis.
APRIL-19	08-04-19 to 13-04-19	2	Kreb's cycle – electron transport chain and phosphorylation,
	15-04-19 to 20-04-19	2	bioenergetics of Kreb's cycle
	21-04-19 to 22-04-19	2	Revision
	22-04-19		LAST WORKING DAY


[Signature]
Principal

Smt. Allum Sumangalamma Memorial
College for Women, Ballari-583103

[Signature]

Head of the Department of Zoology,
Smt. A.S.M. College for Women
BALLARI-583 103

MARCH-19	05-03-19 to 09-03-19	4	Continuous and discontinuous distributions with examples – Barriers of dispersal – topographic and vegetative barriers, large bodies of water as barriers climatic barriers.
	11-03-19 to 16-03-19	4	Wild life fauna in the Himalayan ranges, the peninsular Indian sub region, Deccan plateau,
	18-03-19 to 23-03-19	4	Western Ghats, Eastern hill chain, the Indian desert, tropical rain forests, wild life in Andaman and Nicobar Islands.
	25-03-19 to 30-03-19	4	Definition, Wild life problems -Hunting, over harvesting, habitat loss, Pollution and Climate change. Importance of Wild Life Conservation and management. Ex-situ Conservation and In Situ Conservation
APRIL-19	01-04-19 to 05-04-19	4	Indian Board for Wildlife (IBWL), Wildlife Institute of India (WII), Central Zoo Authority of India (CZA), Bombay Natural History Society (BNHS), Project Tiger,
	08-04-19 to 13-04-19	4	Wild life (protection) Act 1972. World Wide Fund for Nature (WWF), Convention of international trade in endangered species of wild life flora and fauna. CITES),
	15-04-19 to 20-04-19	4	(Ramsar convention, Convention on Biological Diversity (CBD), Trade Record Analysis of Flora & Fauna in Commerce (TRAFFIC) IUCN- Red Data Book,
	21-04-19 to 22-04-19	2	Revision
	22-04-19		LAST WORKING DAY


Principal
Smt. Allum Sumangalamma Memorial
College for Women, Ballari-583103


Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103.

Department of Zoology
Lesson plan 2018-19
II, IV and VI Semester
1. D.Satheesh, Asst. Prof in Zoology,



Paper -6.2 .Ecology , Zoogeography and Wild life			
Date of reopening and Commencement of Classes:21-12-2018			
Last date of completion 22/04/2019			
Month	Week	Hours	Syllabus to be covered
Dec 2018	21-12-2018 to 29-12-2018	5	Definition, History, Ecology spectrum – Subdivision of Ecology – Scope of Ecology. Light – effect of light on animals, Temperature – thermal stratification – effect of temperature on animals, Adaptations to extreme temperature.
	31-12-18 to 05-01-19	4	Mutualism, commensalism parasitism, ammensalism, predation and competition with relevant examples. Components and Functions of Ecosystem. Natural ecosystems and man engineered ecosystem. Laws of thermodynamics. Energy flow in ecosystem, types of food chains with examples, Food web, ecological pyramids.
JANUARY-19	07-01- 19 to 12-01-19	4	Study of pond as Typical Ecosystem –Zonation, abiotic components and biotic components Community structure, Ecological stratification – Ecotone& Edge effect. Ecological Niches.
	15-01-19 to 19-01-19	4	Marine habitat: Physico-Chemical Feature, ecological zonation and classification of marine biota, Ecological adaptations to pelagic water and Deep Sea, Estuarine habitat: Physico-Chemical Features and Biota. Mangroves.
	21-01-19 to 25-01-19	4	Fresh water habitat: Physico-Chemical Features of Lentic and lotic water bodies. Ecological adaptations of fresh water animals living in Lotic Water bodies
	28-01-19 to 02-02-19	4	Terrestrial habitat – A brief account of biomes (Characteristics and fauna of Tundra, taiga, Grasslands, Savannas, chaparrals, Decidua's Forests and Deserts.). Faunal adaptations to Desert conditions
FEBRUARY-19	04-02-19 to 09-02-19	4	Population density, Nataliy and Biotic potential – Allee's principle and Gause's principle Mortality, age distribution,
	11-02-19 to 16-02-19	4	population growth rate, population growth curves. Environment pollution: Definition, Pollutants and types of Pollution- Air Pollution,
	18-02-19 to 23-02-19	4	Water Pollution, Soil Pollution – Sources, effect and control
	25-02-19 to 02-03-19	4	Zoogeographical realms (with subdivision) of world, with climatic conditions and examples of characteristic fauna – brief account of Wallace's line

Name of the faculty:- Chatterjee H.S

Subject:- Zoology

TEACHING PLAN Class :



Hours	Topic to be covered	Remarks
-------	---------------------	---------

Date of Reopening 21-12-2018			
Commencement of Classes VI semester :21-12-2018			
B.Sc. VI Semester paper 6.1			
Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	History of cell biology and its branches. Cell Theory
	31-12-18 to 05-01-19	2	Study of light and electron microscope
Jan 19	7-01-19 to 12-01-19	2	cell fractionation, ultra structure of animal cell.
	15-01-19 to 19-01-19	2	Cell organelles Structure and functions of Plasma membrane
	21-01-19 to 25-01-19	2	Mitochondria, Golgi complex
	28-01-19 to 02-02-19	2	Lysosomes, endoplasmic reticulum
Feb 19	04-02-19 to 09-02-19	2	Ribosomes, Nucleus
	11-02-19 to 16-02-19	2	Centrioles, cytoskeletal elements
	18-02-19 to 23-02-19	2	Cell cycle: Mitosis & meiosis
	25-02-19 to 02-03-19	2	meiosis and regulations of cell cycle
Mar 19	05-03-19 to 09-03-19	2	Biology of cancer: Types of cancer, & characteristics of cancer cell,
	11-03-19 to 16-03-19	2	carcinogenic agents (physical, chemical and biological)& Reproductive system and Early development of human: Menstrual cycle and its regulation
	18-03-19 to 23-03-19	2	Structure of sperm and ovum, ovulation, cleavage
	25-03-19 to 30-03-19	2	morula, blastocyst and implantation. Placenta introduction
April 19	01-04-19 to 05-04-19	2	Placenta: Morphological and histological classifications of placenta with examples
	08-04-19 to 13-04-19	2	Placenta:structure and functions of placenta – yolk sac placenta, allantoic placenta.
	15-04-19 to 20-04-19	2	Modern trends in human reproduction:Sperm bank, IVF, cloning, surrogate mother
	21-04-19 to 22-04-19	2	multiple births – twins. Revision

Asst./Asso. Professor

Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103
H.O.D.

Principal
Smt. A.S.M. College
For Women, Ballari.

Name of the faculty :- Chaitanya H.S

Subject :- Zoology

TEACHING PLAN

Class :-

Hours	Topic to be covered	Remarks
-------	---------------------	---------



Date of Reopening 21-12-2018			
Commencement of Classes II semester :21-12-2018			
B.Sc. II Semester paper 2.1			
Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	General characters of chordate
	31-12-18 to 05-01-19	2	outline classification of the Phylum Chordata up to classes with examples
Jan 19	7-01-19 to 12-01-19	2	GC of sub phylum urochordata, cephalochordata
	15-01-19 to 19-01-19	2	GC of vertebrata and class cyclostomata (GC)
	21-01-19 to 25-01-19	2	Cyclostomata with examples- General organization of Petromyzon.
	28-01-19 to 02-02-19	2	General organization of Petromyzon. Introduction to aves
Feb 19	04-02-19 to 09-02-19	2	GC of Aves and classification
	11-02-19 to 16-02-19	2	Classification of aves with examples upto orders. Flight adaptation of birds
	18-02-19 to 23-02-19	2	. Flight adaptation of birds
	25-02-19 to 02-03-19	2	Economic importance of birds.
Mar 19	05-03-19 to 09-03-19	2	GC of Mammals and classification upto sub classes with suitable examples
	11-03-19 to 16-03-19	2	Study of rat- morphology and digestive system
	18-03-19 to 23-03-19	2	Study of digestive system and arterial & venous system
	25-03-19 to 30-03-19	2	Atrial & venous system and reproductive system of rat.
April 19	01-04-19 to 05-04-19	2	Reproductive system of rat
	08-04-19 to 13-04-19	2	Revision
	15-04-19 to 20-04-19	2	Revision
	21-04-19 to 22-04-19	2	Revision

Chaitanya H.S.
Asst. / Asso. Professor

[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women
BALLARI-583 103
H.O.D.

[Signature]
Principal
Smt. ASM College
For Women, Ballari.

Name of the faculty: Chaitanya H.S

Subject: - Zoology

TEACHING PLAN

Class: 2018-19

Hours	Hrs	Topic to be covered		Remarks
Month	Week	Hours	Syllabus to be covered	
July-18	05-07-18 to 07-07-18	1	Genetic engineering and biotechnology. Introduction	
	9-07-18 to 14-07-18	2	Recombinant DNA technology, (Isolation of Gene, Endonucleases, Palindrome Sequence, Cloning Vectors-Plasmids, Gene Cloning),	
	16-07-18 to 21-07-18	2	Production of insulin by r DNA technology,	
	23-07-18 to 28-07-18	2	PCR and, DNA finger printing	
August-18	30-07-18 to 04-08-18	2	DNA vaccines..	
	06-08-18 to 11-08-18	2	Applications of genetic engineering in Medicine,	
	13-08-18 to 18-08-18	2	food technology and agriculture.	
	20-08-18 to 25-08-18	2	Useful and harmful effect of biotechnology	
	27-08-18 to 01-09-18	2	Nesting behavior in Birds: Nesting behavior in Birds -	
September-18	03-09-18 to 08-09-18	2	Types of Nests.	
	10-09-18 to 15-09-18	2	Mimicry: Definition, types of mimicry,	
	17-09-18 to 22-09-18	2	protective, aggressive and warning mimicry with suitable examples,.	
	24-09-18 to 29-09-18	2	coloration – types of coloration	
October-18	01-10-18 to 06-10-18	2	Fossils and Fossilization, Types of Fossils,	
	08-10-18 to 13-10-18	2	Significance of fossils. Origin and evolution of man.	
	15-10-18 to 20-10-18	2	Revision	



Chaitanya H.S
Asst./Asso. Professor

[Signature]
Head of the Department of Zoology
Smt. A.S.M. College for Women
H.O. P-583 103.

[Signature]
PRINCIPAL,
Smt. A.S.M. College
For Women, Ballari.

Name of the faculty: - Lakshmi Soganya. V
 Sub: - Zoology



Lesson Plan.

Date of Reopening 21-12-2018 Commencement of Classes IV semester :21-01-2018 B.Sc. IV Semester paper 4.1			
Month	Week	No of Hrs	Syllabus to be covered
December 18	21-12-18 to 29-12-18	02	Introduction: Branches of physiology, scope of physiology
	31-12-18 to 05-01-19	02	Digestion: Mechanical digestion and chemical digestion- Digestion and absorption of proteins
	7-01-19 to 12-01-19	02	Digestion and absorption of carbohydrates and lipids
Jan -19	15-01-19 to 19-01-19	01	Respiration: External and internal respiration – Respiratory pigments Hemoglobin, haemocyanin and haemoerythrin.
	21-01-19 to 25-01-19	02	Physiology of respiration – exchange of gases, transport of O ₂ , oxygen dissociation curves – Borh's effect,
	28-01-19 to 02-02-19	02	transport of CO ₂ , chloride shift, respiratory quotient
Feb- 19	04-02-19 to 09-02-19	02	Circulation: Types of circulation – structure, functions and regulation of human heart
	11-02-19 to 16-02-19	02	Blood pressure, composition of human blood, neurogenic and myogenic hearts.
	18-02-19 to 23-02-19	02	Nitrogen excretion in aquatic and terrestrial animals – Ammonotelism and ureotelism and uricotelism with examples.
March 19	25-02-19 to 02-03-19	02	Ornithine (Urea) cycle. Physiology of urine formation
	05-03-19 to 09-03-19	02	. Enzymes : Classification of enzymes (IUB system),
	11-03-19 to 16-03-19	02	Mechanism of enzyme catalyzed action – lock and key method, induced fit hypothesis.
	18-03-19 to 23-03-19	02	Specificity of enzymes, reversibility of enzyme action,
	25-03-19 to 30-03-19	02	enzyme inhibitors, cofactors
April 19	01-04-19 to 05-04-19	02	Vitamins: Fat soluble vitamins (A,D,E and K) functions and deficiency symptoms.
	08-04-19 to 13-04-19	02	Water soluble vitamins (B complex and vitamin C) functions and deficiency symptoms.
	15-04-19 to 20-04-19	02	Revision
	21-04-19 to 22-04-19	02	Revision

Lakshmi Soganya

[Signature]
 Principal
 Smt. ASM College
 For Women, Ballari.

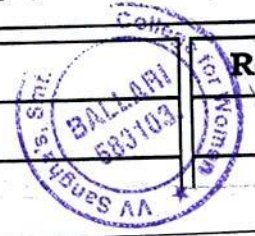
[Signature]
 Head of the Department of Zoology
 Smt. A.S.M. College for Women
 BALLARI-583 103.

Name of the faculty: - Lakshmi Sanyal V

Subject: - Zoology

TEACHING PLAN Class :

Hours	Topic to be covered	Remarks
-------	---------------------	---------



Month	Week	Hours	Syllabus to be covered
			Date of reopening : 01-06-2018 Commencement of Classes : 19-06-2018 - 19
June-18	19-06-18 to 23-07-18	02	Introduction to Non chordata : Principles of animal Classification- Five Kingdom classification, concept of species Animal nomenclature (Binomial and Trinomial)
July-18	02-07-18 to 07-07-18	02	Phylum-Protozoa: General characters and classification up to classes with suitable examples
	9-07-18 to 14-07-18	02	Phylum - Porifera: General characters and classification up to classes with suitable examples
	16-07-18 to 21-07-18	02	Histology and spicules. Canal system in sponges
	23-07-18 to 28-07-18	02	Phylum-Coelenterata: General characters Classification up to classes with suitable examples.
August-18	30-07-18 to 04-08-18	02	Formation and types of Coral reefs
	06-08-18 to 11-08-18	02	Structure and life Cycle of Hydra.
	13-08-18 to 18-08-18	02	Phylum Platyhelminthes: General characters and classification up to classes with suitable examples
	20-08-18 to 25-08-18	02	Structure and life cycle of <i>Taenia solium</i> ,
	27-08-18 to 01-09-18	02	Host parasite relationship and parasitic adaptations
September-18	03-09-18 to 08-09-18	02	Phylum: Nematelminthes: : General characters and classification up to classes with suitable examples
	10-09-18 to 15-09-18	02	Parasitic adaptations of Guinea worm
	17-09-18 to 22-09-18	02	Parasitic adaptations encysted micro filaria, and hook worm
	24-09-18 to 29-09-18	02	Phylum- Annelida: General characters and classification up to classes with suitable examples,
October-18	01-10-18 to 06-10-18	02	Structure <i>Pheretima posthuma</i> : External Digestive
	08-10-18 to 13-10-18	02	Nervous system , Reproductive system
	15-10-18 to 20-10-18	02	life cycle of <i>Pheretima posthuma</i>
	22-10-18 to 27-10-18	02	Ecological adaptation of polychaeta
	29-10-2018 to 31-10-2018	01	Revision

Lakshmi Sanyal
Asst./Asso. Professor

[Signature]
H.O.D.
Head of the Department of Zoology
Smt. ASM College for Women
BALLARI-583 103.

[Signature]
PRINCIPAL,
Smt. ASM College
For Women, Ballari.

Name of the faculty:- Lakshmi Sanyal, V

Subject:- Zoology

TEACHING PLAN Class :



Marks	Hours	Topic to be covered	Remarks
-------	-------	---------------------	---------

Month	Week	Hours	Syllabus to be covered
			Date of reopening :01-06-2018 Commencement of Classes :11-06-2018
JUNE-18	11-06-18 to 16-06-18	02	Apiculture: Honey bee morphology, mouth parts, honey sac, wax glands, types of different species and races
	18-06-18 to 23-07-18	02	Management of bee keeping (modern method) Economic important of honey, wax, pollen, venom and bee pollination
July-18	02-07-18 to 07-07-18	02	A note on production on honey, its chemical composition and honey bee diseases.
	9-07-18 to 14-07-18	02	Brief history and concept of sericulture : Moriculture, different types of mulberry (Morus alba, Morus codifelia, Morus indica, Morus nigra).
	16-07-18 to 21-07-18	02	1. Grainage – grainage activities Silk worm rearing
	23-07-18 to 28-07-18	02	2. Postharvest technology
August-18	30-07-18 to 04-08-18	02	Life cycle of <i>Bombyx mori</i> , environmental condition needed for rearing,
	06-08-18 to 11-08-18	02	modern method of rearing house,
	13-08-18 to 18-08-18	02	rearing equipments chawki, worm and adult worm rearing methods.
	20-08-18 to 25-08-18	02	Non mulberry silk worm (ex. Muga and Tasar)
	27-08-18 to 01-09-18	02	Silk worm pests and predators
September-18	03-09-18 to 08-09-18	02	A note on silk worm diseases.) Bacterial diseases (Digestive track) Muscardine (white or green)
	10-09-18 to 15-09-18	02	muscardine protozoan diseases (Pebrine), and viral diseases (Grasseria).
	17-09-18 to 22-09-18	02	Aquaculture: Principle, scope, techniques
	24-09-18 to 29-09-18	02	Importance of culturing economically important aquatic animals.
October-18	01-10-18 to 06-10-18	02	. Brief account of Indian major carps and fresh water prawn Induced breeding of major carps and seed fish
	08-10-18 to 13-10-18	02	Endocrine regulation of fish reproduction. A note on fish by products and fish diseases
	15-10-18 to 20-10-18	02	Revision
	22-10-18 to 27-10-18	02	Revision

Lakshmi Sanyal
Asst./Asso. Professor

Lakshmi Sanyal
Head of the H.O.D.
Smt. A.S.M. College for Women
BALLARI-583 103.

[Signature]
PRINCIPAL,
Smt. A.S.M. College
For Women, Ballari.

Name of the Staff :- Neha Naseeba.S

Subject :- Zoology

TEACHING PLAN Class :



Hours	Topic to be covered	Remarks
-------	---------------------	---------

Date of Reopening 21-12-2018			
Commencement of Classes VI semester :21-12-2018 -19			
B.Sc. VI Semester paper 6.1			
Month	Week	Hours	Syllabus to be covered
December 18	21-12-18 to 29-12-18	2	Introduction: Branches of Embryology, Scope of Embryology, Theories of development, pre formation and epigenetic theory.
	31-12-18 to 05-01-19	2	Spermatogenesis and oogenesis - comparison between spermatogenesis and oogenesis
Jan-19	7-01-19 to 12-01-19	2	Kinds of fertilization,
	15-01-19 to 19-01-19	2	approach of gametes, fertilization and anti fertilization, acrosome reaction - cortical reaction
	21-01-19 to 25-01-19	2	Amphimixis, monospermic
	28-01-19 to 02-02-19	2	polyspermic fertilization, significance of fertilization
Feb 19	04-02-19 to 09-02-19	2	Types of cleavage - Holoblastic, meroblastic, radial and spiral types with examples
	11-02-19 to 16-02-19	2	Effect of yolk on cleavage
	18-02-19 to 23-02-19	2	Early development of frog :Structure of ovum, cleavage
March 19	25-02-19 to 02-03-19	2	Early development of frog : blastulation and gastrulation.
	05-03-19 to 09-03-19	2	Early development of chick: Structure of hen's egg, cleavage
	11-03-19 to 16-03-19	2	blastulation, gastrulation
	18-03-19 to 23-03-19	2	origin and structure of primitive streak
	25-03-19 to 30-03-19	2	Early development of chick: structure of 24
April 19	01-04-19 to 05-04-19	2	48 hours chick embryos.
	08-04-19 to 13-04-19	2	Extra embryonic membranes.
	15-04-19 to 20-04-19	2	Revision
	21-04-19 to 22-04-19	2	Revision

Neha Naseeba.S
Asst./Asso. Professor

[Signature]
Head of the Dept.
Smt. ASM College for Women
BALLARI-583 103

[Signature]
Principal
Smt. ASM College
For Women, Ballari.

Name of the Staff: - Meha Naseeba S

Subject: - Zoology

TEACHING PLAN

Class :

2018-19

Hours	Topic to be covered	Remarks
-------	---------------------	---------



Month	Week	Hours	Syllabus to be covered
July-18	02-07-18 to 07-07-18	2	Unit :6. Phylum-Arthropoda: General characters of
	9-07-18 to 14-07-18	2	classification up to classes with distinctive characters and suitable examples.
	16-07-18 to 21-07-18	2	classification up to classes with distinctive characters and suitable examples.
	23-07-18 to 28-07-18	2	phylum and Mouth parts of (cockroach & butterfly
August-18	30-07-18 to 04-08-18	2	Type Study of palaemon:- External, digestive System
	06-08-18 to 11-08-18	2	and Nervous system
	13-08-18 to 18-08-18	2	Unit :7. a. Phylum-Mollusca: General characters
	20-08-18 to 25-08-18	2	classification up to classes with distinctive characters and suitable examples
	27-08-18 to 01-09-18	2	classification up to classes with distinctive characters and suitable examples
September-18	03-09-18 to 08-09-18	2	Type study of unio- morphology.
	10-09-18 to 15-09-18	2	digestive and nervous system
	17-09-18 to 22-09-18	2	b. Phylum-Echinodermata: General characters of phylum
	24-09-18 to 29-09-18	2	classification up to classes with distinctive characters and suitable examples.
October-18	01-10-18 to 06-10-18	2	classification up to classes with distinctive characters and suitable examples.
	08-10-18 to 13-10-18	2	Larval forms of Echinodermata
	15-10-18 to 20-10-18	2	Revision
	22-10-18 to 27-10-18	2	Revision

Asst./Asso. Professor

Head of the Department of Zoology
Smt. A.S.M. College for Women
H.O. Ballari-583 103.

PRINCIPAL,
Smt. ASM College
For Women, Ballari.

of the staff :- Neha Naseeba S

Sub :- Zoology

TEACHING PLAN

Class :



Remarks

Topic to be covered

Remarks

Month	Week	Hours	Syllabus to be covered
July 18	02-07-18 to 07-07-18	2	Definition and types of animal behavior
	9-07-18 to 14-07-18	2	Innate behavior: Kinesis, Taxes, Reflexes, Instincts and Motivation
	16-07-18 to 21-07-18	2	Learned behavior: Habituation, Imprinting
	23-07-18 to 28-07-18	2	Conditioned reflex and Insight learning
	30-07-18 to 04-08-18	2	Social organization in Honey bees, Termites.
August 18	06-08-18 to 11-08-18	2	Social organization Macaques.
	13-08-18 to 18-08-18	2	Migration in fishes – Types of migration, anadromous and catadromous migration with reference to Hilsa and Anguilla
	20-08-18 to 25-08-18	2	Migration in birds- Methods of studying migration, preparation for migration,
	27-08-18 to 01-09-18	2	Types of Bird Migration, Orientation and Navigation.
	September-18	03-09-18 to 08-09-18	2
10-09-18 to 15-09-18		2	
17-09-18 to 22-09-18		2	Courtship Behaviour: Definition,
24-09-18 to 29-09-18		2	general principles courtship in scorpions and peacock.
October-18	01-10-18 to 06-10-18	2	Parental care in fishes.
	08-10-18 to 13-10-18	2	Parental care amphibians
	15-10-18 to 20-10-18	2	Revision

Neha
Asst./Asso. Professor

D. S. S. 11
Head of the Department of Zoology
Smt. A.O. College for Women
BALLARI-583 103.

[Signature]
PRINCIPAL,
Smt. ASM College
For Women, Ballari

Name of the Staff :- D. Sathesh

Subject : Zoology

TEACHING PLAN Class :Paper -6.2 .Ecology , Zoogeography and Wild life
Date of reopening and Commencement of Classes:21-12-2018
Last date of completion 22/04/2019

Month	Week	Hours	Syllabus to be covered
Dec 2018	21-12-2018 to 29-12-2018	5	Definition, History, Ecology spectrum – Subdivision of Ecology – Scope of Ecology. Light – effect of light on animals, Temperature – thermal stratification – effect of temperature on animals, Adaptations to extreme temperature.
	31-12-18 to 05-01-19	4	Mutualism, commensalism parasitism, ammensalism, predation and competition with relevant examples. Components and Functions of Ecosystem. Natural ecosystems and man engineered ecosystem. Laws of thermodynamics. Energy flow in ecosystem, types of food chains with examples, Food web, ecological pyramids.
JANUARY-19	07-01-19 to 12-01-19	4	Study of pond as Typical Ecosystem – Zonation, abiotic components and biotic components Community structure, Ecological stratification – Ecotone & Edge effect. Ecological Niches.
	15-01-19 to 19-01-19	4	Marine habitat: Physico-Chemical Feature, ecological zonation and classification of marine biota, Ecological adaptations to pelagic water and Deep Sea, Estuarine habitat: Physico-Chemical Features and Biota. Mangroves.
	21-01-19 to 25-01-19	4	Fresh water habitat: Physico-Chemical Features of Lentic and lotic water bodies. Ecological adaptations of fresh water animals living in Lotic Water bodies
	28-01-19 to 02-02-19	4	Terrestrial habitat – A brief account of biomes (Characteristics and fauna of Tundra, taiga, Grasslands, Savannas, chaparrals, Decidua's Forests and Deserts.). Faunal adaptations to Desert conditions
FEBRUARY-19	04-02-19 to 09-02-19	4	Population density, Natalty and Biotic potential – Allee's principle and Gause's principle Mortality, age distribution,
	11-02-19 to 16-02-19	4	population growth rate, population growth curves. Environment pollution: Definition, Pollutants and types of Pollution- Air Pollution,
	18-02-19 to 23-02-19	4	Water Pollution, Soil Pollution – Sources, effect and control
	25-02-19 to 02-03-19	4	Zoogeographical realms (with subdivision) of world, with climatic conditions and examples of characteristic fauna – brief account of Wallace's line
	05-03-19 to 09-03-19	4	Continuous and discontinuous distributions with examples – Barriers of dispersal – topographic and vegetative barriers, large bodies of water as barriers climatic barriers.
MARCH-19	11-03-19 to 16-03-19	4	Wild life fauna in the Himalayan ranges, the peninsular Indian sub region, Deccan plateau,
	18-03-19 to 23-03-19	4	Western Ghats, Eastern hill chain, the Indian desert, tropical rain forests, wild life in Andaman and Nicobar Islands.
	25-03-19 to 30-03-19	4	Definition, Wild life problems -Hunting, over harvesting, habitat loss, Pollution and Climate change. Importance of Wild Life Conservation and management. Ex-situ Conservation and In Situ Conservation
	01-04-19 to 05-04-19	4	Indian Board for Wildlife (IBWL), Wildlife Institute of India (WII), Central Zoo Authority of India (CZA), Bombay Natural History Society (BNHS), Project Tiger,
APRIL-19	08-04-19 to 13-04-19	4	Wild life (protection) Act 1972. World Wide Fund for Nature (WWF), Convention of international trade in endangered species of wild life flora and fauna. CITES),
	15-04-19 to 20-04-19	4	(Ramsar convention, Convention on Biological Diversity (CBD), Trade Record Analysis of Flora & Fauna in Commerce (TRAFFIC) IUCN- Red Data Book,
	21-04-19 to 22-04-19	2	Revision
	22-04-19		LAST WORKING DAY

Asst./Asso. Professor

H.O.D.

Principal
Sri Sri College
For Women, Ballari.

Name of the Staff :- Dr. D. Sathesh

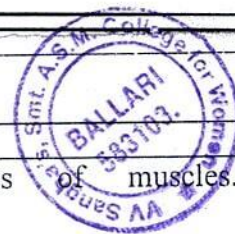
Subject :- Zoology

TEACHING PLAN**Class :**

Date of reopening and Commencement of Classes: 21-12-2018

Last date of completion 22/04/2019

Month	Week	Hours	Syllabus to be covered
December 2018	21-12-2018 to 29-12-2018	2	Muscle contraction: Principle types of muscles. Ultrastructure of striated muscles,
JANUARY-19	31-12-18 to 05-01-19		contractile proteins – myosin, actin, tropomyosin, troponin and actinin.–
	07-01-19 to 12-01-19	2	Mechanism of muscle contraction and relaxation the sliding filament theory
	15-01-19 to 19-01-19	2	Nervous co-ordination: Nature and conduction of nerve impulse
	21-01-19 to 25-01-19	2	Neuromuscular and synaptic transmission junction neurotransmitters
FEBRUARY-19	28-01-19 to 02-02-19	2	Endocrine system: Functions of mammalian endocrine glands pituitary, thyroid,
	04-02-19 to 09-02-19	2	parathyroid, testis, ovary,
	11-02-19 to 16-02-19	2	pancreas, adrenals, placenta and pineal gland.
	18-02-19 to 23-02-19	2	Hypothalamus and its stimulatory and inhibitory hormones.
	25-02-19 to 02-03-19	2	Immunology: Introduction
MARCH-19	05-03-19 to 09-03-19	2	Immune system – General characteristic organs and cells of immune system, bone - marrow,–
	11-03-19 to 16-03-19	2	primary lymphoid organ – Bursa of Fabricius, thymus, Payer's patches- T and B cells
	18-03-19 to 23-03-19	2	Antigens and antigenicity – immunoglobulin structure of immunoglobulin G(IgG) and immunization.,
	25-03-19 to 30-03-19	2	AIDS – Causative factors, effects and preventive measures
APRIL-19	01-04-19 to 05-04-19	2	BIOENERGETICS: Concept of Bioenergetics, free energy changes, glycolysis Bioenergetics of glycolysis.
	08-04-19 to 13-04-19	2	Kreb's cycle – electron transport chain and phosphorylation,
	15-04-19 to 20-04-19	2	bioenergetics of Kreb's cycle
	21-04-19 to 22-04-19	2	Revision
	22-04-19		LAST WORKING DAY



Asst./Asso. Professor

H.O.D.

Principal
Smt. ASM College
For Women, Ballari.

Name of the Staff :- D. Sathesh

Zoology

TEACHING PLAN

Class :



Remarks	Hours	Topic to be covered	Remarks
---------	-------	---------------------	---------

Date of reopening : 01-06-2018			
Commencement of Classes : 11-06-2018			
Month	Week	Hours	Syllabus to be covered
JUNE-18	11-06-18 to 16-06-18	2	Poultry: Aim and scope of poultry. Poultry form management Nutritive value of egg and poultry meat.
	18-06-18 to 23-07-18	2	Poultry breeds in India
July-18	02-07-18 to 07-07-18	2	Rearing house equipment,
	9-07-18 to 14-07-18	2	Food and its composition, broilers, layers.
	16-07-18 to 21-07-18	2	A note on diseases. Nutritional deficiency diseases, Ectoparasitic diseases,
	23-07-18 to 28-07-18	2	Viral diseases, Bacterial diseases, protozoan diseases.
August-18	30-07-18 to 04-08-18	2	Helminthes diseases and genetic diseases of poultry birds, symptoms, remedies, and their control.
	06-08-18 to 11-08-18	2	Dairy forming : Importance, scope,
	13-08-18 to 18-08-18	2	Management of forming animals, breeds of cows and buffaloes
	20-08-18 to 25-08-18	2	Nutritional requirements,
	27-08-18 to 01-09-18	2	Housing and hygiene of dairy animals.
September-18	03-09-18 to 08-09-18	2	Milk and milk products. Processing, preservation and marketing.
	10-09-18 to 15-09-18	2	Breeding techniques - artificial insemination. Breeding programme to improve local breeds.
	17-09-18 to 22-09-18	2	Vermiculture: Vermiculture its concept and importance. Procedure of Vermiculture (Small scale large scale).
	24-09-18 to 29-09-18	2	Role of earthworm in soil fertility
October-18	01-10-18 to 06-10-18	2	Pearl culture: Microscopic structure of Shell.
	08-10-18 to 13-10-18	2	Pearl formation
	15-10-18 to 20-10-18	2	Revision
	22-10-18 to 27-10-18	2	Revision

Asst./Asso. Professor

H.O.D.
Head of the Department of Zoology
Smt. A.S.M. College for Women

PRINCIPAL,
Smt. A.S.M. College
For Women, Ballari

TEACHING PLAN

Class :



Name of Staff: - D. Sathuresh

Sub: Zoology

Date of reopening : 01-06-2018

Commencement of Classes : 14-06-2018

(2018-19)

Month	Week	Hours	Syllabus to be covered
JUNE-18	11-06-18 to 16-06-18	4	Introduction: History of genetics, branches of genetics, heredity and variation. Practical applications of genetics. Genetics Terminology
	18-06-18 to 23-07-18	4	Chromosomes: Chromosome number, size chromosomal morphology, and types. Structure and models. Heterochromatin and euchromatin. Giant chromosomes - polytene and lampbrush chromosomes
July-18	02-07-18 to 07-07-18	4	Nucleic acids and protein biosynthesis: Introduction: Identification of genetic material - Griffith's experiment. Chemistry of nucleic acids, structure of DNA
	9-07-18 to 14-07-18	4	Watson and crick DNA model, replication of DNA. Forms of DNA. Types of RNA. Genetic code, properties of genetic code, wobble hypothesis, mechanism of protein biosynthesis.
	16-07-18 to 21-07-18	4	Interaction of genes: Supplementary factors - 9: 3: 3: 1 Example: Comb pattern in fowls. Dominant epistasis-13: 3: plumage colour in Leghorn and yandotte. Dominant epistasis - 12:3:1 Coat colour in dogs Recessive epistasis 9: 3: 4 - Coat colour in mouse
	23-07-18 to 28-07-18	4	C complementary factors - 9 : 7, flower colour in sweet peas, Multiple factors / polygenic inheritance - Skin Colour in Man. Lethal gene - Coat colour in mice.
August-18	30-07-18 to 04-08-18	4	Multiple Alleles: Characteristics of Multiple Alleles, Inheritance of coat colour in Rabbit and ABO blood groups in human, Rh-factor, Isoalleles, Pseudoalleles and position effect.
	06-08-18 to 11-08-18	4	Linkage and Crossing over:: Linkage: Theories of linkage, Linkage in Drosophila, linkage in man,
	13-08-18 to 18-08-18	4	Crossing over: Mechanism of meiotic Crossing Over, Types of Crossing over, Cytological detection of crossing over (Stern's Experiment on Drosophila), Significance of Crossing over
	20-08-18 to 25-08-18	4	Sex determination: Chromosomal mechanism of sex determination, Genic balance theory, Gynandromorphy and intersexes
	27-08-18 to 01-09-18	4	Sex linked inheritance: Sex linked inheritance in Drosophila. Haemophilia and colour blindness in man. Sex linkage in poultry, Y linked genes
September-18	03-09-18 to 08-09-18	4	Mutations: Chromosomal aberrations- Human Diseases: Klinefelter's Syndrome, Turner's syndrome, Edwards Syndrome, Patau syndrome Chi-du - chart syndrome and Down's syndrome (Mongolism). Gene mutations - Types of gene mutation and Molecular basis of gene mutations,.

Asst./Asso. Professor

H.O.D.
Head of the Department of Zoology,
Smt. A.S.M. College for Women
BALLARI-583 103

PRINCIPAL,
Smt. ASM College
For Women, Ballari.