

Percentage of Revision of B. Sc Zoology Syllabus under Regulation 2021

S.No	Course Code	Course Title	Content Deleted	Content Updated	Change details	% of Changes	Reason for Change
1.	21UZY101	Core –I Nonchordata	Polymorphism in coelentrates Type study –Nereis	Coral reefs types and formation Type study - Earthworm	Content changed	10%	Subject Expert
2	21UZY203	Core Lab - I (Non-Semester Pattern) Nonchordata & Chordata	Spotters Plasmodium Nereis Corals	Spotters Paramecium Earthworm Sponge Gemmules	Content changed	5%	Subject Expert
3.	21UBY1A1	Allied I Invertebrates and Vertebrates	-	Frog – Brain	Introduced	3%	Course Teacher
4.	21UZY202	Core –II Chordata	Parental care in Frog	-	Content removed	3%	Course Teacher
5.	21UBY2A2	Allied –II Economic Zoology	Vermiculture (Full unit removed)	Unit –IV Cocoon Market Pest Management (full unit introduced)	Full unit revised	23%	Course Teacher
6.	21UZY304	Core –III Cell Biology	-	Unit – 1 Corona virus – SARS COV-2	Content introduced	3%	Course Teacher
7.	21UZY406	Core Lab – II	Spotters: HIV	Spotters: Corana Virus - SARS COV-2	Content changed	3%	Course Teacher
8.	21UZY3N1	Non- Major Elective – I (NME)	Unit – III Blood borne diseases,	-Dermatitis, Fucosidosis - Kwashiorkar, Marasmas	Content changed	3%	Subject expert

		Public Health and Hygiene	Kidney stone				
9.	21UZY3N2	Non- Major Elective – I (NME) Ornamental Fish Culture	Unit – I General structure of fish Unit - II Materials, equipment required for aquarium Construction of home aquarium Structure and location of home aquarium Unit - III Selection of fish for home aquarium Common aquarium fishes Unit – V Bioremedies for fish disease Ornamental fish breeding-cum rearing unit for entrepreneurs	Unit- II Egg layers Live bearer Breeding and spawning of live bearers and egg layers Unit – III Applications of transgenic technology in ornamental fish Maintenance of water quality Unit – IV Nutritional requirements Feeding methods and problems in artificial face.	Content changed	40%	Subject expert
10.	21UZY405	Core –IV Genetics	Unit V 1. Indirect evidences of DNA as genetic material	Unit V 1. Bacteriophage infection	Content changed	3%	Course Teache
11.	21UZY4N21	Food and Nutrition	Unit- V Purification of drinking water	Unit- II Glycemic index	Content changed	3%	Course Teache
12.	21UZY 507	Core – V Developmental Biology	Unit- I 1. Introduction to developmental biology	Unit-I Scope of developmental biology	Content changed	5%	Course Teache
13.	21UZY508	Core – VI Biotechnology	Unit – IV Explants Product harvest Unit- V Biofertilizer	Unit – III Genetically modified organism – Mice and Sheep	Content changed	5%	Subject Expert
14.	21UZY509	Core – VII Biostatistics & Biophysics	-	Unit- III Statistical inference – Procedure of testing a hypothesis Unit- V - Real time PCR	Content added	10%	Subject Expert

15.	21UZY510	Core – VIII Biochemistry	Unit III <ul style="list-style-type: none"> • Scope of Bioinformatics • Databases <ul style="list-style-type: none"> ○ Biological database (Properties and classification) ○ Specialized database • Protein sequence database – SWISS-PROT • Data mining • Virtual Library Unit –IV <ul style="list-style-type: none"> • Genomics –Classification and applications • Proteomics –Classification and applications • Drug designing • Human genome project <ul style="list-style-type: none"> ○ Goals and techniques ○ Potential benefits 	Unit-IV Metabolism Unit- V Classification of enzymes and coenzymes	Content changed	40%	Course Teache
16.	21UZY 5E1	Core Elective Paper –I Medical Laboratory Techniques	Unit – II Fully removed Unit- IV Naked eye inspection	Unit – II Fully added Unit – IV Physical examination Unit-V Cryopreservation Gamete bank	Content changed	5%	Course Teache
17.	21UZY614	Core Lab – III (Non-Semester Pattern) Developmental Biology, Animal Physiology & Endocrinology,	Spotters Phylogenetic tree (Rooted tree) RasMol (Visualization tool) BLAST Pentose sugar	Spotters Structure of Purine Structure of α -tocopherol Structure of Chymotrypsin Structure of Sucrose	Content changed	15%	Course Teache

		Biostatistics & Biophysics, Biochemistr, MLT, Heamatology and Clinical pathology and Poultry Science and Management					
18.	21UZY 615	Core Lab - IV (Ecology, Evolution, Biotechnology, Microbiology, Sericulture, Insect pest management, Parasitology, Aquaculture, Dairy Farming and management technology and Wild life conservation)	Spotters Microenvironmental studies Micropippete Gill net	Spotters Colony counter Purse Seine net		10%	Course Teache
19.	21UZY612	Core - X Ecology & Evolution		Unit - I Water problems in Aquatic habitat - Fresh, sea and estuary Unit - III Theories of origin of life Unit- IV Neo-Darwininsm Neo-Lamarkism Unit-V Mutation theory of Devries Evolution of Man - Cultural and Biological Fossils of Human Evolution	Content added	30%	Subjec Expert

20.	21UZY613	Core – XI Microbiology and Immunology	<p>Unit II: Bacterial culture- Culture of E.coli</p> <p>Unit III Microorganisms of food Factors influence microbial growth Normal microflora of human body Bacterial diseases- Botulism Viral Disease - Hepatitis</p>	<p>Unit I: Sterilization, Isolation and Maintenance of Microbes</p> <p>Unit II: Biofertilizer- Rhizobium</p> <p>Unit III</p> <ul style="list-style-type: none"> • Food microbiology: <ul style="list-style-type: none"> ▪ Food borne diseases, ▪ Food borne infections ▪ Food borne intoxicans • Medical microbiology <ul style="list-style-type: none"> ▪ Bacterial Diseases -TB, ▪ Viral Diseases –Covid19 ▪ Fungal Diseases- Cutaneous and systemic mycoses • Industrial Microbiology <ul style="list-style-type: none"> ▪ Fermentor design ▪ Microbial Selection, ethanol and penicillin Production, 	Content changed	20%	Subject Expert
21	21UZY6E22	Core Elective -II Insect Pest Management	-	Unit- III Chemical control	Content added	3%	Subject Expert
22.	21UZY6E7	Core Elective – III Aquaculture	-	Unit – II Nutritional requirements	Content added	3%	Subject Expert
23.	21UZY6E32	Core Elective – III Wild Life Conservation	<p>Unit – I fishes, amphibians, reptiles, birds and mammals in India-India as a mega wildlife diversity country</p> <p>Unit- II Natural and artificial regeneration of forests; Harmful Insects and their role in forest economy; Insect pests of important trees of India -Teak, Sal and Bamboo; Beneficial Insects and their role in forest</p>	-	Content removed	20%	Subject Expert

			<p>economy: Scavenger insects dung beetles; Pollinators, Predatory insects, and parasitic insects on insect pests; control of forest insects</p> <p>Unit – III Habitat manipulation: food, water, shade improvement; Making observations and records: field notes, datasheets;</p> <p>Unit-IV Planning census Basic concepts and applications</p> <p>Unit-V Definition, formation, management and administration; Lion and Hangul; Zoos and Zoological Parks: Definition-Aims of Zoos-Formation and Management of Zoos and Zoological Parks -Central Zoo Authority of India; aptive breeding: Aims, Principles, methods; Role of Government and Non-Governmental organizations in conservation</p>				
24	21UZY6E33	Dairy Farming and Management Technology	<p>Unit- I ICMR recommendation of nutrients Role of milk and milk products in human nutrition.</p> <p>Unit –II Fully removed</p> <p>Unit – III Sugar , Minerals and vitamins</p> <p>Unit – IV Clean milk production</p> <p>Unit – V Dairy processing –Milk collection, transportation & Grading of milk Butter –ghee and Ice cream Concentrated and dried milk products</p>	<p>Unit – II Fully added</p> <p>Unit- III Nutritive requirements of dairy cow, maintenance</p>	Content changed	30%	Subject Expert

			Cheese and other fermented products Effective utilization of dairy by-products				
25	21UZY6S22	Biopharmaceuticals	Unit- V Structure of quality management	-	Content removed	3%	Subject Expert

22/5/2021
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New Course Added: (IF ANY) - (2021-2022)

S.No	Year Batch	Semester	Paper Code	% of Changes	Paper Title	Reason For Change
1.	2021-2024	V	21UZY5E3	100 %	Haematology and Clinical Pathology	Suggested by Subject expert
2.	2021-2024	V	21UZY5AL1	100 %	Advanced Learner Course-I Bioinformatics	Suggested by CDC
3.	2021-2024	V	21UZY5VA	100 %	Value added Course-Food Safety and Hygiene	Suggested by CDC
4.	2021-2024	VI	21UZY6E6	100%	Parasitology	Suggested by Faculty
5.	2021-2024	VI	21UZY6VA	100 %	Value Added Course-Personality Development	Suggested by CDC
6.	2021-2024	VI	21UZY6AL2	100 %	Advanced Learner Course-II Immunotherapeutics	Suggested by CDC


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