

दिनांक	पाठ्य योजना	अध्यापन विवरण भाग 1
5/3/2021	B.Sc I <sup>st</sup> Migration in fish B.Sc II <sup>nd</sup> Alimentary Canal & digestive B.Sc III <sup>rd</sup> Air & water pollution	Migration in fish Causes & Significance Migration Causes & Significance migration
6/3/2021	B.Sc I <sup>st</sup> Parental care in fish B.Sc II <sup>nd</sup> Structure & function of Endocrine gland B.Sc III <sup>rd</sup> Bio-geo chemical cycles	Parental care in fish Different types Method of parental care ↓
7/3/2021		Nest building, Brood pouches Attachment to body, Integument Cups, Coiling around eggs, Shelter in Mouth, Menstrual purses, Viviparity
8/3/2021		Viviparity Parental care
9/3/2021		Significance of Parental care
10/3/2021	B.Sc I <sup>st</sup> Parental care in Amphibia B.Sc II <sup>nd</sup> Hormone receptor B.Sc III <sup>rd</sup> Aims & Scope of Ecology	Parental care in Amphibia ↓
11/3/2021		
12/3/2021		Two Types Parental care in Amphibia - ① Protection by Nest ② Direct Caring by Parents

Subject - Zoology

माह ..March..... वर्ष 2021

अध्यापन विवरण भाग 2	अध्यापन विवरण भाग 3	रिमांक
Alimentary Canal & Digestion	Air & water pollution	
Digestive system of Reptiles	Causes of Air & water pollution, Control of gland in Alimentary Canal	
Structure & function of Endocrine gland	Bio-geo Chemical cycles ↓	
① Pituitary gland ② Thyroid gland ③ Thymus gland ④ Adrenal gland ⑤ Pancreas ⑥ Hypothalamus	Hydrosphere, Lithosphere, Atmosphere, Biogen Chemical Cycles - ① Oxygen cycle ② Carbon dioxide cycle ③ Carbon cycle	Sunday
Biosynthesis & Secretion of Thyroid, Adrenal, Ovarian & Testicular Hormones	④ Nitrogen cycle, ⑤ Hydrogen cycle ⑥ Cycle of Matter ⑦ Phosphorus cycle ⑧ Sulphur cycle ⑨ Calcium cycle ⑩ Water cycle	
Hormone receptor	Aims & Scope of ecology ↓	
Regulation of the Number Receptors, Origin & Evolution of Hormone Receptors	Ecology, Scope Ecosystem, Biosphere	Mahashivratri Holiday

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दिनांक	पाठ्य योजना	अध्यापन विवरण भाग 1
13/3/2021		<u>1) Protection by Nest</u> (a) In enclosures nest in the water (b) In holes near water (c) Tree nests or overhanging the water (d) To Making gelatinous bags (e) In trees bank <u>2) Direct carrying by Parents</u> (a) transferring of tadpoles to water (b) Coiling around eggs (c) Attached eggs with body (d) In Back pouches (e) Organs as broodings pouch <u>(f) Viviparity</u>
14/3/2021		
15/3/2021	B.Sc I <sup>st</sup> Neoteny B.Sc II <sup>nd</sup> Respiratory Organs B.Sc III <sup>rd</sup> Ecological Succession	<u>Neoteny</u> ↓ Types of Neoteny → (i) Total Neoteny (ii) Partial neoteny Factors affecting Neoteny (i) Temperature (ii) Hormones (iii) PH (iv) food <u>Significance of Neoteny</u>
16/3/2021		

अध्यापन विवरण भाग 2	अध्यापन विवरण भाग 3	रिमांक
The hormonal receptors Play a major role in hormonal action <u>1) Change in membrane</u> <u>2) activation of genes by</u> Binding with intracellular receptors <u>3) effect on cell membrane</u> <u>Mechanism of Hormonal action</u> <u>Receptors of the effector</u> <u>enzymes</u> Acetylcholine receptors Muscarinic & nicotinic Receptors Adrenergic receptors	Importance of Ecology <u>linkage &amp; linkage Map</u> <u>Introduction</u> Types of linkage - (i) Complete linkage (ii) Incomplete linkage <u>Significance of linkage</u>	
		Sunday
<u>Respiratory organs</u> ↓ Respiratory System (i) Gills - External internal (ii) lungs Respiratory system of Representative Vertebrate Mechanism of respiration Physiology of respiration (i) fish (ii) Amphibia (iii) Reptiles (iv) Aves (v) Mammals	<u>Ecological Succession</u> ↓ Introduction, Definition Stages of Succession Major trends in Ecological Succession Process of Succession Types of Succession (i) Primary (ii) Secondary (iii) Causes, Modification, Factors, Concept of climax Biome, Ecological Equivalents, significance	

SAMPLE



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दिनांक	पाठ्य योजना	अध्यापन विवरण भाग 1
17/3/2021	B.Sc I <sup>st</sup> Cell Division	Cell Division
	B.Sc II <sup>nd</sup> Circulatory System	↓
	B.Sc III <sup>rd</sup> Laws of limiting factors	↓
		Introduction, cell cycle
		Phase of cell cycle -
		(i) Prophase
		(ii) Division or M-phase
18/3/2021		Types of Cell Division -
		(i) Amitosis Division
		(ii) Mitosis Division
		(a) Karyokinesis
		(b) Cytokinesis
19/3/2021		Anaphase, Prophase, Metaphase
		Telophase
20/3/2021		(iii) Meiosis Division
		(a) Karyokinesis
		(b) Prophase, Metaphase,
		Anaphase, Telophase
		(c) Cytokinesis
21/3/2021		
22/3/2021	B.Sc I <sup>st</sup> Cancer cell & cell transformation	Cancer cell & cell
	B.Sc II <sup>nd</sup> Modification of aortic arches	Transformation
	B.Sc III <sup>rd</sup> Food chain & fresh water Ecosystem	↓
		Introduction, Cancer, Types
		of Tumours - (i) Malignant
		(ii) Non-malignant tumors
		Characteristics of Cancer
		Types of Cancer - (i) Lymphoma
		(ii) Leukemia (iii) Sarcoma (iv)
		Carcinoma (v) Melanoma
23/3/2021		Characteristics of Cancer cells
		Cause of Cancer
		Cancer causing Agents
		Factors, Treatment

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अध्यापन विवरण भाग 2	अध्यापन विवरण भाग 3	टिप्पणियाँ
Circulatory system	Laws of limiting factors	
↓	↓	
Water, Blood And Lymph Circulatory System	Introduction, Definition	
Evolution of Heart	Leebig-blackman's law of Minimum	
Heart in Vertebrates	(ii) Shelford's law of tolerance	
Study of heart in different	Combined effect of	
Classes of Vertebrates	limiting factors	
(i) Single circuit heart	Important limiting	
(ii) Two chambered single	factors	
Circuit heart	Importance of limiting	
(iii) Three chambered	factors	
Transitional heart		
(iv) Double Circuit heart		
Comparative study of		
Heart in different classes		
of Vertebrate		
		Sunday
Modification of	Food Chain & Fresh	
Aortic arches	water Ecosystem	
↓	↓	
Modification of aortic	Food Chain Introduction	
arches in different	food web	
Vertebrates -	Ecological pyramid	
(i) Amphioxus	(i) Pyramid of Numbers	
(ii) Cyclostomes	(ii) Pyramid of biomass	
(iii) Fishes	(iii) Pyramid of energy	
(iv) Tetrapods		
(A) Amphibians	Food web in fresh water	
(B) Reptiles	lakes & ponds	
(C) Birds		
(D) Mammals		

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दिनांक	पाठ्य योजना	अध्यापन विवरण भाग 1
24/3/2021	B.Sc I <sup>st</sup> Immunity	Immunity
	B.Sc II <sup>nd</sup> Apiculture	↓
	B.Sc III <sup>rd</sup> Energy flow in Ecosystem	↓
25/3/2021		Introduction, Characteristics of Antigen, principle of Immunology, Type of immunity (i) Innate Immunity (ii) Adaptive Immunity Types of Adaptive immunity (i) Active immunity (ii) Passive immunity
26/3/2021	B.Sc I <sup>st</sup> Lymphoid Organ	Lymphoid Organ
	B.Sc II <sup>nd</sup> Physiology of Muscle Contraction	
	B.Sc III <sup>rd</sup> Conservation of Natural Resources	
		Introduction, Two types of Lymphoid Organs - (i) Primary Lymphoid Organ (ii) Secondary Lymphoid Organ
27/3/2021		
28/3/2021		
29/3/2021		
30/3/2021	B.Sc I <sup>st</sup> Antigens And Antibody	Antigens & Antibody
	B.Sc II <sup>nd</sup> Evidence of Organic Evolution	Classification, Different
	B.Sc III <sup>rd</sup> Environmental impact assessment	immunoglobuline Antibody production cell, Antigen-Antibody reactions Immune response
31/3/2021		

अध्यापन विवरण भाग 2	अध्यापन विवरण भाग 3	टिप्पणियाँ
Apiculture	Energy flow in Ecosystem	
↓	↓	
Introduction, Trophic level	Old method, Modern Method	
Pattern of flow of energy	Management of honey bee	
Through Ecosystem	hive, Migratory bee keeping	
Dynamics of ecosystem	Bee diseases, Treatment	
Energy flow in an Ecosystem	Economics of bees,	
Term	production of beekeeping	
	Beekeeping industry in India	
Physiology of muscle Contraction	Conservation of Natural Resources	
↓	↓	
Striated Muscle and skeletal	Two types of Classification Natural Resources	
Unstriated Muscles	(i) Renewable Resources	
Cardiac Muscles	(ii) Non-renewal Resources	
Mechanism of Muscle Contraction	Conservation of Natural Resources	
Theories of Muscle Contraction	(i) Mineral resources & Cons.	
Chemical changes During Muscle Contraction	(ii) Soil, water, forest, wild life, fish Cons.	
Factors affecting Mus. Contraction	Range management	
		Sunday
		Holy Holiday
Evidence of Organic Evolution	Environmental impact assessment	
Evidence from Comparative anatomy	Source area	
Evidence from Classification	Introduction, Definition	
Evidence from physiology, Biochemistry, Embryology,	Significance	
Connecting link Animals, geographical Distribution, Cretaceous, Atavism, Palaeontology		



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माह April ..... वर्ष 2021

दिनांक	पाठ्य योजना	अध्यापन विवरण भाग 1
1/4/2021	B.Sc I <sup>st</sup> General Characters of Classification B.Sc II <sup>nd</sup> Respiration B.Sc III <sup>rd</sup> Pathogenicity, Treatment	General Characters of Classification Phylum - protozoa Paramecium Introduction, classification External structure, Internal structure, locomotion Nutrition, respiration of excretion, Behaviour
2/4/2021		
3/4/2021	B.Sc I <sup>st</sup> Paramecium B.Sc II <sup>nd</sup> Cytokinesis, Krebs cycle B.Sc III <sup>rd</sup> Trypanosoma & Ciliadia	Reproduction of Paramecium Signification of conjugation
4/4/2021		
5/4/2021	B.Sc I <sup>st</sup> Phy. Porifera Classification & Types B.Sc II <sup>nd</sup> Biosynthesis & Secretion B.Sc III <sup>rd</sup> Pathogenic helminths - schistosoma	Phylum - porifera Classification And Types Introduction, General Characters Outline classification of phylum Porifera, some other type of Porifera - Sycon, Oscarella, Euplectella, Spongilla Chalina, Cliona
6/4/2021	B.Sc I <sup>st</sup> - Chalina, Cliona B.Sc II <sup>nd</sup> Biosynthesis & Secretion of Ovarian B.Sc III <sup>rd</sup> Nematode pathogenic parasite of Man	Introduction, General Characters Life cycle, Disease
7/4/2021	B.Sc I <sup>st</sup>	
8/4/2021	B.Sc II <sup>nd</sup> I <sup>st</sup> - Phylum - Platyhelminthes B.Sc III <sup>rd</sup> I <sup>st</sup> Nervous System B.Sc III <sup>rd</sup> Ancylostoma Duodenale	Phylum - platyhelminthes classification And Types

अध्यापन विवरण भाग 2	अध्यापन विवरण भाग 3	टिप्पणी
Respiration	Pathogenicity, Treatment of pathogenic	
Introduction, Definition, Types of Respiration, gaseous exchange in different respiratory organs, Mechanism of respiration, Transport of gases	(1) Entamoeba, Classification, Morphology, life cycle, Infection, Treatment, Prevention	
Cytokinesis Define Krebs cycle Define	Trypanosoma & Ciliadia Intro. classification, structure, Polymorphism, life cycle, Treatment, Pathogenicity	Good Friday Holiday
		Sunday
Biosynthesis & Secretion of thyroid, Adrenal, Ovarian, Testicular Hormone	Pathogenic helminths - Schistosoma -	
Biosynthesis & Secretion of Thyroid, Adrenal gland, Steroid Hormones, Secretion of Ovarian Hormone, Estrogens, Biosynthesis of progesterone, Secretion of relaxin Hormone	Introduction, Classification General Characters, Morphology, life cycle, pathogenesis Therapy Acanis Introduction, Morphology, life cycle, Infection of New hosts, pathogenesis, Therapy	
Nervous System General plan of brain & spinal cord	Ancylostoma Duodenale	कामना माना कमी जायती नसता

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