

Test no.	12 <sup>th</sup> level	Graduation level	PG level
1.	<b>Cell Structure and Functions :</b> Concept of Cell Theory; Structure of Prokaryotic and Eukaryotic cell; Plant and Animal cell; Structure, properties and functions of cell surface - cell process, cell organelles-structure and function;		
2.	<b>Chromosomes – Structure, types, aberrations,</b> Chemical constituents of living cells : Biomolecules - Structure and functions of proteins, carbohydrates, lipids, <b>Nucleic Acids;</b> Enzymes – Types, properties and enzyme action, Cell cycle; cell division - mitosis, meiosis and their significance.		
3.	<b>Taxonomy :</b> Definition of life, Biodiversity, <b>Need for classification, concept of species and taxonomical hierarchy, Binominal nomenclature, Tools for study of taxonomy – Museums, Zoos, Herbaria, Botanical gardens.</b> Classification of Living organism, five kingdom system. Salient features and classification of plants (major groups upto class). <b>Life cycle of Algae, Fungi,</b>		
4.	<b>Life cycle Bryophytes, Pteridophyta, Gymnosperm and Angiosperm.</b>		
5.	<b>Structural organization in Plants :</b> Plant tissue : Anatomy of root, stem, and leaves of monocots and dicots		
6.	Morphology, anatomy and functions of <b>Morphological types Inflorescence, flower and fruits.</b>		
7.	<b>Structural organization in Animals :</b> Animal Tissue : Types, Origin, Location, Structure and functions.		
8.	<b>Animal Physiology :</b> Digestion and absorption, Breathing and Respiration, Body fluids and circulation,		

<b>9.</b>	Excretory product and their elimination, <b>Locomotion and movement, Neural control and coordination,</b>		
<b>10.</b>	<b>Chemical coordination and regulation, Reproduction.</b>		
<b>11.</b>	<b>Reproduction in Plants : Vegetative, Asexual and Sexual Reproduction. Structure of flower, Pollination, Fertilization, Development of embryo.</b>		
<b>12.</b>		<b>Floral variations in Ranunculaceae, Apiaceae, Asteraceae and Poaceae</b>	
<b>13.</b>	<b>Genetics</b> Mendelian Inheritance; chromosome Theory of Inheritance, <b>Sex determination in human</b> beings. Linkage and crossing over.		
<b>14.</b>		<b>Biotechnology and its Applications.</b> Definition, scope and application; Recombinants DNA technology; Transgenic animals and plants, Application in Health and Agriculture Tissue culture-methods and application	
<b>15.</b>	<b>Biology and Human Welfare :</b> <b>Basic concepts of immunology, vaccines, Pathogens, Parasites, Cancer, AIDS</b>		
<b>16.</b>	<b>EVOLUTION</b> <b>Origin of life – theories and evidence.</b>		
<b>17.</b>	<b>Ecology and Environment:</b> Organism and its environment. Population and ecological adaptations, Environmental factors (climatic, edaphic and biotic )		
<b>18.</b>	<b>Ecosystems- components, types, energy flow; Food chain, food web.</b>		

19.		<b>Environmental biology :</b> Plant and animal succession. Biogeochemical cycles: Carbon, Nitrogen, Phosphorus . Environmental Pollution, Air, Water and Noise and Soil Pollution.	
20.			<b>Biogeography and Wild life conservation :</b> Endemism, Hot spots, Plant and Animal distribution with special reference to Rajasthan. Wild life conservation. Biosphere reserves, wild life sanctuaries and National Parks.
21.			<b>Ethology :</b> A brief account of types of behavioral of animals - Feeding , Learning, Instinctive, Motivated, Social and Reproductive.
22.		<b>Taxonomy :</b> <b>Salient features and classification of non chordata and chordata upto order level with examples.</b> Symmetry, coelom, metamerism, arthropodization.	
23.		<b>ECONOMIC ZOOLOGY</b> Economic importance of protozoa, Helminthes, molluscs and insects	
24.		<b>Structure (External Internal), Reproduction and life cycle of the following</b> Amoeba, Obelia, Taenia, Ascaris,	
25.		<b>Structure (External Internal), Reproduction and life cycle of the following</b> Pheretima , Periplanata, Rana, Rabbit.	
26.		<b>Embryology :</b> Gametogenesis, Spermatogenesis and Oogenesis, Fertilization, Cleavage, Blastula, <b>Gastrula-Morphogenetic movement, Fate maps, embryonic induction,</b>	

<b>27.</b>		<b>Metamorphosis of frog. Regeneration, Amphibian limb regeneration. Extra-embryonic membranes in chick, placenta in mammals.</b> Endocrine control of ovulation, pregnancy, parturition and lactation.	
<b>28.</b>		<b>Plant physiology :-</b> Water relations, Transpiration, Photosynthesis, Respiration,	
<b>29.</b>		Growth, Mineral Nutrition, Plant movements, <b>Nitrogen and Lipid Metabolism.</b>	
<b>30.</b>		<b>Biostatistics :</b> Mean, Mode, Median, Standard deviation, Tabular and graphical representation of data-table, histogram, Pie diagram, bar diagram, line graph.	
<b>31.</b>			<b>Technique in Biology :</b> <b>Electrophoresis, Centrifugation, Chromatography, Colorimetry, Spectrophotometry, ELISA.</b> <b>Microscopy :</b> <b>Principle of light, Phase contrast and Electron microscope.</b>
<b>32.</b>	<b>FULL SYLLABUS BIOLOGY MOCK TEST 1</b>		
<b>33.</b>	<b>FULL SYLLABUS BIOLOGY MOCK TEST 2</b>		
<b>34.</b>	<b>FULL SYLLABUS BIOLOGY MOCK TEST 3</b>		
<b>35.</b>	<b>FULL SYLLABUS BIOLOGY MOCK TEST 4</b>		