India's **No.1** Institute **CSIR UGC NET, GATE, IIT JAM, GAT B & CUET PG**

MH SET

LIFE SCIENCES

Test Series Plan



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PAPER II

MOLECULES AND THEIR INTERACTION RELEVANT TO BIOLOGY

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Molecules and Their Interaction Relevant to Biology 01	50
	Molecules and Their Interaction Relevant to Biology 02	50
	Molecules and Their Interaction Relevant to Biology 03	50
PRACTICE TEST	Section A Structure of Atoms Molecules and Chemical Bonds	10
	Section B Composition Structure and Function of Biomolecules	10
	Section C Stabilizing Interactions	10
	Section D Principles of Biophysical Chemistry	10
	Section E Bioenergetics Glycolysis Oxidative Phosphorylation Coupled Reaction Group Transfer Biological Energy Transducers	10
	Section F Principles of Catalysis Enzymes and Enzyme Kinetics Enzyme Regulation Mechanism of Enzyme Catalysis Isozymes	10
	Section G Conformation of Proteins	10
	Section H Conformation of Nucleic Acids	10
	Section I Stability of Proteins and Nucleic Acids	10
	Section J Metabolism of Carbohydrates Lipids Amino Acids Nucleotides and Vitamins	10

CELLULAR ORGANIZATION

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Cellular Organization 01	50
	Cellular Organization 02	50
	Cellular Organization 03	50
PRACTICE TEST	Section A Membrane Structure and Function	10
	Section B Structural Organization and Function of Intracellular Organelles	10
	Section C Organization of Genes and Chromosomes	10
	Section D Cell Division and Cell Cycle	10
	Section E Microbial Physiology	10

FUNDAMENTAL PROCESSES

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Fundamental Processes 01	50
	Fundamental Processes 02	50
	Fundamental Processes 03	50
PRACTICE TEST	Section A DNA Replication Repair and Recombination	10
	Section B RNA Synthesis and Processing	10
	Section C Protein Synthesis and Processing	10
	Section D Control of Gene Expression at Transcription and Translation Level	10

CELL COMMUNICATION AND CELL SIGNALING		
TYPE	**TEST NAME**	**NO. OF QUESTIONS**
UNIT TEST	Cell Communication and Cell Signalling 01	50
	Cell Communication and Cell Signalling 02	50
	Cell Communication and Cell Signalling 03	50
PRACTICE TEST	Section A Host Parasite Interaction	10
	Section B Cell Signalling	10
	Section C Cellular Communication	10
	Section D Cancer	10
	Section E Innate and Adaptive Immune System	10

DEVELOPMENTAL BIOLOGY		
TYPE	**TEST NAME**	**NO. OF QUESTIONS**
UNIT TEST	Developmental Biology 01	50
	Developmental Biology 02	50
	Developmental Biology 03	50
PRACTICE TEST	Section A Basic Concepts of Development	10
	Section B Gametogenesis Fertilization and Early Development	10
	Section C Morphogenesis and Organogenesis in Animals	10
	Section D Morphogenesis and Organogenesis in Plants	10
	Section E Programmed Cell Death Aging and Senescence	10

SYSTEM PHYSIOLOGY - PLANT		
TYPE	**TEST NAME**	**NO. OF QUESTIONS**
UNIT TEST	System Physiology Plant 01	50
	System Physiology Plant 02	50
	System Physiology Plant 03	50
PRACTICE TEST	Section A Photosynthesis	10
	Section B Respiration and Photorespiration	10
	Section C Nitrogen Metabolism	10
	Section D Plant Hormones	10
	Section E Sensory Photobiology	10
	Section F Solute Transport and Photoassimilate Translocation	10
	Section G Secondary Metabolites	10
	Section H Stress Physiology	10

SYSTEM PHYSIOLOGY - ANIMAL		
TYPE	**TEST NAME**	**NO. OF QUESTIONS**
UNIT TEST	System Physiology Animal 01	50
	System Physiology Animal 02	50
	System Physiology Animal 03	50
PRACTICE TEST	Section A Blood and Circulation	10

TYPE	TEST NAME	NO. OF QUESTIONS
PRACTICE TEST (CONT.)	Section B Cardiovascular System	10
	Section C Respiratory System	10
	Section D Nervous System	10
	Section E Sense Organs	10
	Section F Excretory System	10
	Section G Thermoregulation	10
	Section H Stress and Adaptation	10

INHERITANCE BIOLOGY

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Inheritance Biology 01	50
	Inheritance Biology 02	50
	Inheritance Biology 03	50
PRACTICE TEST	Section A Mendelian Principles	10
	Section B Extensions Linkage	10
	Section C Chromosomal Aberrations Mapping	10
	Section D Microbial Genetics	10
	Section E Extrachromosomal Inheritance Mutation	10
	Section F Human Quantitative Genetics	10
	Section G Recombination Molecular Markers	10
	Section H Population Genetics	10

DIVERSITY OF LIFE FORMS

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Diversity of Life Forms 01	50
	Diversity of Life Forms 02	50
	Diversity of Life Forms 03	50
PRACTICE TEST	Section A Principles and Methods of Taxonomy	10
	Section B Levels of Structural Organization	10
	Section C Outline Classification of Plants Animals and Microorganisms	10
	Section D Natural History of Indian Subcontinent	10
	Section E Organisms of Health and Agricultural Importance	10
	Section F Organisms of Conservation Concern	10

ECOLOGICAL PRINCIPLES

TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Ecological Principles 01	50
	Ecological Principles 02	50
	Ecological Principles 03	50
PRACTICE TEST	Section A the Environment	10
	Section B Habitat and Niche	10

TYPE	TEST NAME	NO. OF QUESTIONS
PRACTICE TEST (CONT.)	Section C Population Ecology	10
	Section D Species Interactions	10
	Section E Community Ecology	10
	Section F Ecological Succession	10
	Section G Ecosystem Ecology	10
	Section H Biogeography	10
	Section I Applied Ecology	10
	Section J Conservation Biology	10
EVOLUTION AND BEHAVIOR		
TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Evolution and Behaviour 01	50
	Evolution and Behaviour 02	50
	Evolution and Behaviour 03	50
PRACTICE TEST	Section A Emergence of Evolutionary Thoughts	10
	Section B Origin of Cells and Unicellular Evolution	10
	Section C Paleontology and Evolutionary History	10
	Section D Molecular Evolution	10
	Section E the Mechanisms	10
APPLIED BIOLOGY		
TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Applied Biology 01	50
	Applied Biology 02	50
	Applied Biology 03	50
PRACTICE TEST	Section A Microbial Fermentation and Production of Small and Macro Molecules	10
	Section B Application of Immunological Principles Vaccines Diagnostics Tissue and Cell Culture Methods for Plants and Animals	10
	Section C Transgenic Animals and Plants Molecular Approaches to Diagnosis and Strain Identification	10
	Section D Genomics and its Application to Health and Agriculture Including Gene Therapy	10
	Section E Bioresource and Uses of Biodiversity	10
	Section F Breeding in Plants and Animals Including Marker Assisted Selection	10
	Section G Bioremediation and Phytoremediation	10
	Section H Biosensors	10
METHODS IN BIOLOGY		
TYPE	TEST NAME	NO. OF QUESTIONS
UNIT TEST	Methods in Biology 01	50
	Methods in Biology 02	50
	Methods in Biology 03	50

TYPE	TEST NAME	NO. OF QUESTIONS
PRACTICE TEST	Section A Molecular Biology and Recombinant DNA Methods	10
	Section B Histochemical and Immunotechniques	10
	Section C Biophysical Method	10
	Section D Statistical Methods	10

PAPER I

UNIT TEST NAME	NO. OF QUESTIONS
Unit 1 Teaching Aptitude	50
Unit 2 Research Aptitude	50
Unit 3 Comprehension	50
Unit 4 Communication	50
Unit 5 Mathematical Reasoning	50
Unit 6 Logical Reasoning	50
Unit 7 Data Interpretation	50
Unit 8 Information and Communication Technology	50
Unit 9 People Development and Environment	50
Unit 10 Higher Education System	50

MOCK TESTS

TEST NAME	NO. OF QUESTIONS
Mock Test 01	150
Mock Test 02	150
Mock Test 03	150
Mock Test 04	150
Mock Test 05	150
Mock Test 06	150
Mock Test 07	150
Mock Test 08	150
Mock Test 09	150
Mock Test 10	150

YOUR MH SET JOURNEY STARTS HERE

Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.

— Marie Curie

Thirteen units. One hundred and forty-five tests. Every attempt you make sharpens your judgement and narrows the gap between where you are and where you intend to be. Trust the plan, stay consistent, and let your preparation speak for itself on exam day.

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