

## Syllabus for UG Entrance Exam

### CLASSIFICATION OF INVERTEBRATES AND VERTEBRATES ANIMALS

- General Character and classification of Invertebrate phyla upto class with examples.
- General Character and classification of Phyla chordata upto classes with examples.
- Parasitic and free swimming larval form of Invertebrates and Vertebrates animals.
- Metamorphosis, Regeneration.

### CELL STRUCTURE AND FUNCTION

- Structure of Prokaryotic cell and Eukaryotic cell.
- Difference between Plant and Animal cell.
- Structure and Function of Cell Organells: Cell wall, Plasma Membrane, Mitochondria, Ribosomes, Lysosomes, Golgi apparatus, Endoplasmic reticulum and Nucleus.
- Tissue Organization: Types and Function.
- Genetic Material: Structure and function and types of Chromosome, Molecular structure of DNA and DNA Replication, Structure of RNA and types of RNA.

### GENETICS

- Mendalian Law's and Genetic variation.
- Linkage and Crossing over
- Sex Linked Inheritance: Hemophilia, Colour Blindness, and Sickle Cell Anemia.
- Mutation: Types, Causes and Mutagenes.
- Chromosomal Aberration: Structural and Numerical changes in chromosome.
- Genetic Disorders: Autosomal Syndrome, Sex Chromosomal Syndrome and Metabolism Related Disorder.
- Blood group: Types, Blood Transfusion and Determination of Blood Group.
- Protein Synthesis: Transcription & Translation, Operon Concept.

### ANIMAL PHYSIOLOGY

- Skeletal System: Cervical, Thoracic, Lumbar Vertebrae, Pectoral and Pelvic Girdles, Fore and Hind Limb. Skull bones, sockets and Joints.
- Digestive System: Alimentary Canal, Digestion of Carbohydrates, Proteins and Lipids and Absorption and Liver.
- Respiratory System: Structure of Lungs, Breathing, Internal and External Respiration, Transportation of gases (Oxygen and carbon di oxide), Chloride shift, Haemoglobin.
- Circulatory System: Structure of heart, Heart rate, Cardiac Cycle, Blood Pressure, Circulation of Blood ( Single circulation and Double circulation)

24-10-17  
24/10  
16-10-17  
24/10/17  
16/10  
16/10/17



- Nervous System: Structure of Neuron, Transmission of Nerve Impulse, Synapsis and Neurotransmitter.
- Excretory System: Structure of Kidney, Nephron and Uriniferous Tubules, Formation of Urea and Urine.
- Reproductive System: Male and Female Reproductive Organ, Gametogenesis and Sex Hormones.
- Endocrine System: Structure, Hormonal function and deficiency of Hormones: Pituitary Gland, Adrenal Gland, Thyroid Gland, Parathyroid Gland and Pancreas.

## ECOLOGY AND EVOLUTION

- Ecology: Concept and Scope
- Ecosystem: Structure and Function of Aquatic and Terrestrial Ecosystem, Energy Flow in Ecosystem, Food Chains, Food Webs and Ecological Pyramids.
- Wildlife Conservation: Wild Life Protection Act, National Park, National Sanctuary and Biosphere, Tiger Project, Endangered Species.
- Lamarckism, Darwinism, Neo- Darwinism and Natural Selection.
- Origin of Life, Evolution of Man

*Sam*  
16.10.17

*U*  
16.10.17

*U*  
16/10

*U*  
16/10/17

*U*  
24.10.17

*U*

*U*  
16.10.17

*Sam*  
24.10.17

*Sam*  
24.10.17

*U*

*Sam*

*U*  
24/10/17

*U*  
24/10/17

*U*