Question Bank
Detail Question - 15/ 10 mark

Unit – 1

1) Cell Structure and function with diagram
2) Mitosis
3) Meiosis
4) Protein Structure
5) Forces influencing protein structure
6) Homeostasis
7) Cell Metabolism
8) Cell differentiation

Unit – 2

1) Chemistry of life
2) Biomacromolecules - How systematically Biomacromolecules arranged in living systems
3) Protein Synthesis
4) Sources, application & classification of stem cells
5) Explain DNA & RNA

Unit – 3

1) Significance of enzyme
2) Factors affecting enzyme activity
3) Mechanism of enzyme action
4) Strategies utilized by Enzymes to effect catalysis – Proteases, Carbonic Anhydrase, Restriction Endonuclease, NMP Kinases
5) Photosynthesis
6) Metabolism and bioenergetics

Unit – 4

1) Motors – ATP synthase, Bacterial flagellar motor
2) Cytoskeleton (All)
3) Biosensors
4) Bioremediation

Unit – 5

1) Principles and importance of cell signaling
2) Nervous system (Full)
3) Computer based neural networks
4) Immune system (Full)

Brief Question - 4/ 5 marks

Unit – 1

1) 5 kingdom classification
2) Scientific methods
3) Cell theory
4) Evidence of cell theory
5) Genetic Information (DNA & RNA)
6) Dif. Between unicellular & multicellular and Dif. Between eukaryotes & prokaryotes
7) ATP structure & function
8) Oxidative Phosphorylation
9) Alpha helix & Beta pleated sheets

Unit – 2

1) Biodiversity – Importance & Threats
2) Dif. between Ionic and covalent bond
3) Dif. between DNA & RNA
4) Properties of Stem Cells
5) Gene therapy

Unit – 3

1) Naming & classification of enzyme
2) Explain enzyme – 1) Protease 2) Carbonic anhydrase 3) NMP kinase 4) Restriction enzyme
3) Mechanism of enzyme action
4) Application of enzyme
5) Bioenergetics
6) Photophosphorylation

Unit – 4

1) Cytoskeleton
2) Microfilaments
3) Function of myosin molecular motors
4) Kinesin molecular motors
5) Dynein molecular motors
6) Glucose biosensor
7) Biodetectors
8) Role of microorganisms in bioremediation
9) Advantages & disadvantages of bioremediation

Unit – 5

1) Types of glial cells
2) Neuron structure and function
3) Synapse
4) Explain action potential
5) Auto immune disease with example
6) Mention diseases of nervous system
7) Cells of innate immune system
8) Artificial immune system (AIS)
9) Mention diseases of immune system
10) Epitope & Paratope
11) Types of intercellular cell signaling
12) Types of intracellular cell signaling