

9th Class Biology Important Guess Paper 2026

Chapter 01

- Define Biology, Zoology, Botany and Microbiology
- Branches of Biology (All)
- Define fossils with example
- Define Scientific Method and Biological Method
- Scientific/Biological problems (with example)
- Steps involved in Scientific Method
- Difference between qualitative and quantitative observation
- Define hypothesis and its characteristics
- Meaning of deduction
- Define experiment and how scientists perform it
- Experimental group and Control group
- Difference between theory and law (with examples)
- Exercise Short Questions: 4, 6

Chapter 02

- Define Biodiversity and factors affecting it
- Importance of Biodiversity (Long)
- Define Classification and its aims
- How biologists perform classification
- Define taxonomic ranks (taxa)
- Linnaean system of classification
- Define Domain and Kingdom
- Define Species
- Difference between autotrophs and heterotrophs
- Defects of two-kingdom classification system
- Difference between fungi and plants
- Basis of five-kingdom classification system
- Modification of Whittaker classification
- Role of Carl Woese in classification
- Domain Archaea (Characteristics and examples)
- Survival of Archaea in extreme environments

- Characteristics of Domain Bacteria (Long)
- Protists and parasitic protists
- Difference between plant-like, animal-like and fungus-like protists
- Economic importance of fungi
- Nutrition in fungi
- Characteristics of fungi (Long)
- Difference between plants and animals
- Why viruses are not placed in any kingdom
- Difference between prions and viroids
- Binomial nomenclature (Rules and significance)
- Scientific names (Onion, Potato, Tomato, Honeybee, Tiger, Human)
- Exercise Short Questions: 5, 6, 7, 8, 9, 10
- Long Questions: 3, 4, 5, 6, 7

Chapter 03

- Define cell and explain “cell as a busy city”
- Cells as building blocks of life
- Difference between prokaryotic and eukaryotic cells
- Cell wall (structure, types, functions)
- Plasmodesmata
- Selective permeability of cell membrane
- Cell membrane (composition, structure, functions)
- Cytoplasm and its functions
- Cytosol
- Nucleus as control center
- Structure and functions of nucleus
- Microtubules vs microfilaments
- Ribosomes (location and function)
- Difference between SER and RER
- Difference between cisternae and cristae
- Golgi vesicles
- Lysosomes and function
- Mitochondria (Long)
- Plastids
- Chloroplast (structure and function)
- Chromoplast vs leucoplast
- Tonoplast and turgor pressure

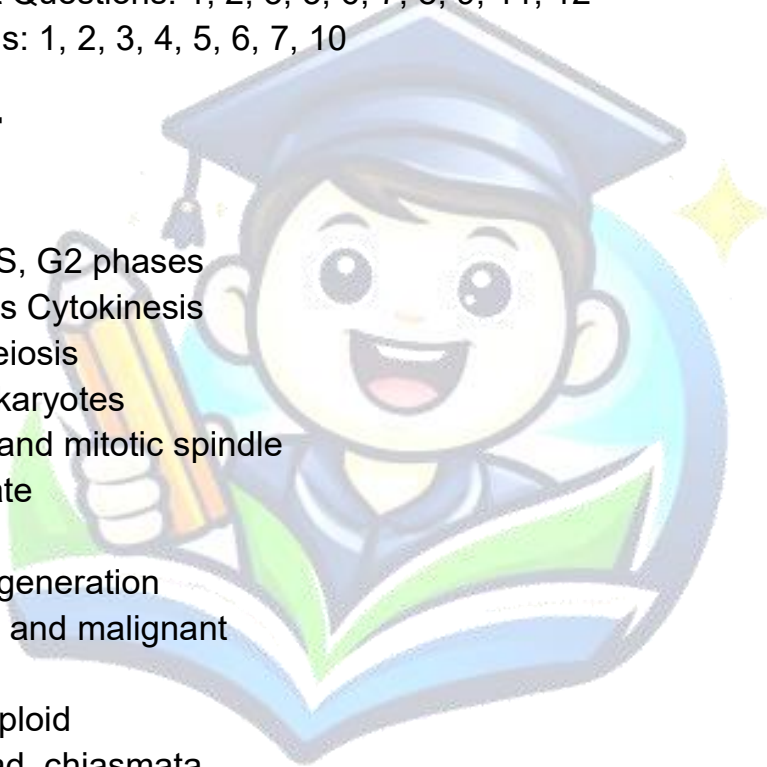
- Centriole, centrosome, basal bodies
- Differentiation
- Mesophyll and epidermal cells
- Muscle cells (Long)
- Neuron, dendrites, axon
- RBC (erythrocytes)
- Structure of neuron (diagram)
- Liver (structure and function)
- Zygote and stem cell
- Exercise Short Questions: 1, 2, 3, 5, 6, 7, 8, 9, 11, 12
- Long Questions: 1, 2, 3, 4, 5, 6, 7, 10

Chapter 04

- Cell cycle
- Interphase
- Events in G1, S, G2 phases
- Karyokinesis vs Cytokinesis
- Mitosis and Meiosis
- Division in prokaryotes
- Spindle fibres and mitotic spindle
- Metaphase plate
- Phragmoplast
- Growth and regeneration
- Tumor, benign and malignant
- Metastasis
- Diploid and haploid
- Synapsis, tetrad, chiasmata
- Crossing over
- Gametes and spores
- Disjunction vs non-disjunction
- Exercise Short Questions: 1, 2, 3, 4, 5, 6, 7, 11

Chapter 05

- Levels of organization (with definitions)
- Plant organs (roots, stems, leaves, flower)
- Epidermal and mesophyll tissues
- Types of mesophyll tissue



- Vascular tissues
- Root and shoot system
- Human organs and functions
- Stomach (functions and tissues)
- Organ systems in human body
- Homeostasis with example
- Importance of homeostasis
- Exercise Short Questions: 1, 2, 3, 4, 6, 8

Chapter 06 (Biochemistry)

- Biochemistry and Molecular Biology
- Biomolecules and examples
- Major biomolecules (table)
- Percentage of biomolecules in protoplasm
- Metabolism, catabolism, anabolism
- Carbohydrates (definition and formula)
- Monosaccharides (characters and examples)
- Structure of ribose and glucose
- Disaccharides (definition and examples)
- Polysaccharides (Long)
- Functions and sources of carbohydrates
- Proteins and structure (Long)
- Essential vs non-essential amino acids

Enzymes

- Mechanism of enzyme action (Lock and Key, Induced Fit)
- Factors affecting enzyme activity
- Enzyme inhibition (types)
- Denaturation and saturation
- Exercise Short Questions: 1, 3, 4, 6, 7, 8, 9, 10
- Long Questions: 1, 2, 3, 5

Chapter 08

- Bioenergetics
- Energy storage in plants and animals
- Redox reactions
- ATP as energy currency

- Structure of ATP
- Photosynthesis (definition and equation)
- Light reaction (diagram)
- Dark reaction (diagram)
- NAD
- Chlorophyll and pigments
- Aerobic respiration
- Anaerobic respiration (fermentation)
- Cellular respiration (glycolysis, Krebs cycle, ETC)
- Exercise Short Questions: 1, 4, 5, 10, 12
- Long Questions: 1, 2, 4, 5

Chapter 09

- Autotrophic vs heterotrophic organisms
- Nutrition and nutrients
- Macronutrients and micronutrients
- Xylem vs phloem
- Passive, active transport and osmosis
- Root hairs
- Pericycle
- Stomata vs lenticels
- Transpiration and transpirational pull
- “Transpiration is a necessary evil”
- Source vs sink
- Photosynthesis vs respiration
- Cuticle
- Guttation vs dew
- Plant adaptations (mesophytes, hydrophytes, xerophytes, halophytes)
- Succulent organs
- Exercise Short Questions: 2, 4, 5, 6, 7, 8

Chapter 10

- Reproduction
- Sexual vs asexual reproduction
- Binary fission vs budding
- Spores and endospores
- Vegetative propagation (natural and artificial)

- Rhizome, bulb, corm
- Cutting vs grafting
- Alternation of generations
- Pistil
- Androecium vs gynoecium
- Megaspore vs microspore
- Pollination (types)
- Fertilization and double fertilization
- Seed and fruit
- Parthenocarpy

Paper Pattern (Short Questions)

- Question 2: 1 + 2
- Question 3: 4 + 5 + 6
- Question 4: 7 + 8 + 9

Paper Pattern (Long Questions)

- Question 5: 2 + 3
- Question 6: 6 + 7

Best of Luck

