

Biology questions for practice (Class 10th)

Chapter # 01

Topics: Biology and its branches, Contribution of five muslim scientists including Abdul Malik Asmai, Quranic verses about origin of life, Needham and Pasture's experiments

Chapter # 02

Define: Mitochondria, Endoplasmic Reticulum, Tissue, Meristematic and Permanent tissues

Differences between: Resolution and Magnification, Prokaryotes and Eukaryotes, Light Microscope and electron microscope

Topics: Salient feature of cell theory, Portal system and its types, Name of arteries and veins of frog, Simple tissue and its types with diagram, Significance of mitosis and meiosis with name and its phases, Animal tissues, Epidermal, Nervous, connective tissues), Brain of frog with diagram

Diagrams: Brassica stem, ventral view of heart of frog, digestive system of frog, urinogenital system of frog

Chapter # 03

Definition: Species, Families, Order, Binominal Nomenclature

Topics: Whittaker classification of five kingdoms, Scientific name and classification of Man, Brassica and Frog

Chapter # 04

Definitions: Saprophytic bacteria, symbiotic bacteria, photosynthetic bacteria, aerobes and anaerobes

Topics: Economic importance of bacteria, structure of virus with diagram and viral disease, characteristics of Cyanobacteria

Diagram: Rod-shaped bacterium

Chapter # 05

Definition: Mycellium, Hyphae, Pyrenoid, Coenocytic organism

Topics: Importance of fungi, characteristics of algae and fungi

Diagram: Chlamydomonas

Chapter # 06

Differences: Dicot and Monocot, Bryophytes and Trachesphytes, Angiosperm and Gymnosperm

Topics: Subgroups of Brayophytes, importance of vascular plant, short note on pinus

Diagram: Adiantum plant, Funaria

Chapter # 07

Definitions: Ostia, Spicules, Pentamerous organism

Differences: Diploblastic and triploblastic animals, Flagella and Cilia

Topics: Characteristics of phylum Arthropodia, Porifera, Cnidaria, Annelida,

Name of five parasites and the phylum to which they belongs

Metamorphosis and its types

Chapter # 08

Definitions: Fangs, Operculum, Cold and warm blooded animals, Hibernation, Notochord

Topics: Characteristics of class Area, Reptilia, Mammals, Flora of Pakistan, Metamorphosis and its types

Chapter # 09

Topics: Note on heteropic plant, Health problems related nutrition, structure problems related nutrition, structure of tooth, light reaction, Deficiency disease caused by vitamin A, B and D, Experiments to prove that chrophyl or CO₂ is necessary for photosynthesis with diagram

Diagrams: Sturcture of tooth, Human digestive system

Chapter # 10

Definitions: Book lungs, Gills, Respiration, Stomata

Differences: Combustion and photosynthesis. ATP and ADP, Respiration and combustion

Topics: Ventilation and types of process, components of cigarette and their harmful effects, Disorder of respiratory system, Aerobic respiration with equation

Chapter # 11

Definitions: Lymphatic system, Diffusion, Rh-factor, Heart attack, Angina, ABO group, Anemia, Haemophilia, Osmosis, Anemia

Topics: Functions of blood, Components of blood in detail with diagram, Transpiration its types and importance, open type of circulatory system, Pulmonary circuit

Diagrams: L.S of human heart

Chapter # 12

Definitions: Latex, Resin, Gums, Nephridia, Excretion, Flame cells, De-mination

Topics: Role of skin in excretion, structure of Nephron with diagram

Chapter # 13

Definition: Heart wood, Annual Ring, Turgidity, Osteoporosis, Tendon

Topics: Functions and types of Skeleton, Types of movement in plants, joints and types, Muscles and its types

Chapter # 14

Topics: Name of endocrine gland with its types, Receptors and name of receptor organs, Defect of eye, Reflex action, Nerves and its types

Diagrams: Neuron, Human eye

Chapter # 15

Definitions: Binary and multiple fission, Fertilization, Cloning, Parthenogenesis

Topics: Pollination and Germination with its types, Advantages of vegetative propagation, Asexual and sexual reproduction

Diagrams: Life cycle of flowering plants

Chapter # 16

Definitions: Alleles, Homozygous, Gene, Dominant character, Transgene plant, DNA & RNA

Topics: Mendel's law of dominance and segregation, Watson and Crick model of DNA, Sickle Cell anemia and Hemophilia

Chapter # 17

Definition: Homozygous and its types, Analogous organ, Vestigial organ

Topics: Variation and its types,

Chapter # 18

Definitions: Population, Community, Food web, Food chain

Topics: Ecosystem and its components, Nitrogen Cycle, Symbiosis and its types

Chapter # 19

Definitions: Cholera, Apiculture. Sericulture, Biotechnology, Acid Rain, Global warming

Topics: Role of Biology in economic development,

Write cause and symptoms of tetanus, Aids, Poliomyelitis, Tuberculosis, Athlete's foot

Pollution and Types of pollutant

Green House effect