# 9th Class Biology

## **Important Questions 2025**

## **Chapter -1**

## **Important Short questions:**

- 1. Define the biology.
- 2. Define anatomy.
- 3. Define taxonomy.
- 4. Define genetics and biotechnology.
- 5. What are parasites?
- 6. Define farming, horticulture and agriculture.
- 7. Differentiate between population and community.
- 8. Write scientific names of crow, frog, mustard, onion
- 9. Define fossil.
- 10. difference between unicellular and multicellular organism.

### **Important Long questions**

- 1. Write a note on Muslim scientists.
- 2. Describe the relationship of Biology with other sciences.
- 3. Give four careers in Biology.
- 4. Arite note on tissue, organ and organ system

## **Chapter -2**

#### **Important Short questions**

- 1. Differentiate between theory and law.
- 2. Why quantitative observations are considered better than qualitative observations?
- 3. Differentiate between quantitative and qualitative observations with examples.
- 4. Define bioinformatics.
- 5. What is incubation period?
- Define scientific method and biological method.
- 7. What do you mean by the biological problem?
- 8. Write the observations of Dr. A.F.A King about malaria.
- 9. Write the characteristics of a good hypothesis. میٹرک اور انٹر کے طالب علموں کے لیے بااعتماد ادارہ
- 10. How we make hypothesis?
- 11. What is meant by deductions?

## Chapter -3

### **Important Short questions**

- 1. Define biodiversity.
- 2. Briefly describe the importance of biodiversity.
- 3. Write aims of classification.
- 4. What do you mean by binomial nomenclature?
- 5. Describe the relationship between taxonomy and systematics.
- 6. Differentiate between the terms 'distinct' and endangered species.
- 7. Differentiate between the nutrition methods in plants and fungi.
- 8. Why viruses are not included in any kingdom? OR What is the place of viruses in classification?
- 9. What is meant by deforestation?
- 10. How the scientist gives scientific names to living organisms?
- 11. What are kingdom monera?
- 12. Write the names of five-kingdom system.

### **Important Long Questions**

- 1. How human activities are affecting biodiversity.
- 2. Write the aims and rules of binomial nomenclature
- 3. Write the aims and rules of classification.
- 4. Give the importance of biodiversity.

## **Chapter-4**

### **Important Short questions**

- 1. Define cell theory. Write its principles.
- 2. Write the functions of leucoplasts and chromoplasts.
- 3. Differentiate between diffusion, facilitated diffusion and active transport.
- 4. What is meant by hypertonic and hypotonic solutions.
- 5. What is the Golgi apparatus or Golgi complex?
- 6. What is osmosis?
- 7. Differentiate between endocytosis and exocytosis.
- 8. Differentiate between eukaryotic and prokaryotic cells.
- 9. What are voluntary and involuntary muscles?
- 10. Write the name of two tissues found in Plants.
- 11. Write about phagocytosis and pinocytosis.
- 12. Write the function of plasmodesmata.
- 13. What is meant by diffusion and facilitated diffusion?
- 14. Define magnification and resolution.

### **Important Long Questions**

1. Write a note on meristematic tissues in plants and muscle tissues in animals.

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- 2. Write the structure and functions of nucleus.
- 3. Write the functions of cell membrane and cell wall.
- 4. What is the cytoskeleton? give its importance.
- 5. Write a note of endoplasmic reticulum, Epidermal tissues.

## **Chapter-5**

#### **Important Short questions**

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- 1. Define cell cycle and write the names of its major phases.
- 2. Differentiate between somatic cells and germline cells.
- 3. What is regenerations?
- 4. How asexual reproduction occurs in hydra?
- 5. Differentiate between benign and malignant tumors.
- 6. What is metastasis?
- 7. Differentiate between mitosis and meiosis.
- 8. What is crossing over?
- 9. What is disjunction and non-disjunction?
- 10. What are apoptotic bodies?
- 11. What is phragmoplast?
- 12. What is meant by G0 and G1 phase?
- 13. Define asexual reproduction with an example.
- 14. What is meant by cytokinesis and karyokinesis?

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## **Chapter-6**

#### **Important Short Questions**

- 1. What are biocatalysts?
- 2. What are enzymes?
- 3. Differentiate between substrates and products.
- 4. What is activation energy?
- 5. Define cofactors, coenzymes and prosthetic groups.
- 6. Write about the use of enzymes in the paper industry.
- 7. How enzymes are denatured?
- 8. In what way do enzymes reduce the activation energy?
- 9. Differentiate between anabolism and catabolism
- 10. What is meant by optimum pH for an enzyme?
- 11. Write about the induced-fit model and Lock and key model of enzyme action.

## **Chapter-7**

### **Important Short questions**

- 1. Define bioenergetics.
- 2. What is ATP? Write names of its subunits.
- 3. Write the significance of anaerobic respiration.
- 4. Differentiate between aerobic and anaerobic respiration.
- 5. Define cellular respiration.
- 6. What is electron transport chain?
- 7. Differentiate between alcoholic fermentation and lactic acid fermentation.
- 8. Compare respiration and photosynthesis.
- 9. What is glycolysis?
- 10. What is meant by light reaction and dark reaction?
- 11. What is the electron transport chain? how is it formed?
- 12. Briefly explain oxidation and reduction processes.

#### **Important Long questions**

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- 1. Differentiate between light reactions and dark reactions
- 2. Write the role of light and chlorophyll in photosynthesis.
- 3. Describe the limiting factors in photosynthesis.
- 4. Explain the mechanism of respiration.

### **Chapter-8**

### **Important Short Questions**

- 1. Differentiate between bolus and chyme.
- 2. What do you mean by nutrition?
- 3. What are saturated and unsaturated fatty acids?
- 4. Write the sources and function of vitamin A.
- 5. What are water-soluble and fat-soluble vitamins?
- 6. Write the sources and functions of vitamin D.
- 7. Write functions of dietary fibre.
- 8. What is a balanced diet?
- 9. Define malnutrition. Write names of its types.
- 10. Write steps of digestion in human.
- 11. Write the functions of the oral cavity.
- 12. What is peristalsis?

- 13. What is an appendix?
- 14. What is anaemia?
- 15. Write symptoms of Ulcer.
- 16. Write the causes of constipation and Diarrhoea.
- 17. What is obesity?
- 18. Write name of two major kinds of fertilizers.

#### **Important Long questions**

- 1. Describe the role of liver in the digestion of food.
- 2. Describe the process of digestion in small intestine.
- 3. Describe the problems related to nutrition.
- 4. Write the importance of fertilizers for plants.

## **Chapter -9**

### **Important Short Questions**

- 1. Define cohesion tension theory.
- 2. What is meant by source and sink?
- 3. Write the functions of pericardial fluid.
- 4. Define systole and diastole.
- 5. What is the role of potassium ion in opening and closing of stomata?
- 6. What is myocardial infarction?
- 7. What is pulmonary and systemic circulation?
- 8. Who are universal donors and universal recipients.
- 9. What is leukaemia?
- 10. Write the composition of blood plasma.
- 11. What is transpiration?
- 12. What is antigen?
- 17. Who are called universal doners?
- 18. Write two differences between arteries and vains.

## **Important Long questions**

- 1. How various factors affect the rate of transpiration?
- 2. Write the causes, treatment and prevention of myocardial infarction.
- 3. Write a note on ABO blood group system.
- 4. Transpiration is a necessary evil. Explain. (Significance of transpiration)
- 5. Structure of human heart with diagram.
- 6. Importance of rH factor in blood transfusion.

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