



# BOARD OF SECONDARY EDUCATION KARACHI

## MODEL QUESTION PAPER

S.S.C. (ANNUAL) EXAMINATIONS 2021 for IX, 2022 for X & ONWARDS

### BIOLOGY (THEORY) (Class IX)

Total Time: 3 Hours

Total Marks 60

Science Group

#### General Instructions:

Section 'A': It consists of 12 Multiple choice questions (MCQs) and all of them are to be answered.

Section 'B': It consists of 15 short answer questions of which 10 questions are to be answered.

Section 'C': It comprises 05 Descriptive answer questions of which 03 questions are to be answered.

#### SECTION-A (COMPULSORY) MULTIPLE CHOICE QUESTIONS (MCOS)

(Time: 30 Minutes)

(12 Marks)

#### Note:

- Attempt all the questions.
- Do not copy down the Questions. Write only the answer against the proper number of questions and its part.
- Each question carries **ONE** mark.

Q. 1 Choose the correct answer for each from the given options.

- The study of remote past organic space the help of fossils is:  
★ Entomology    ★ Paleontology    ★ Taxonomy    ★ Histology
- The correct sequence of Biological Method is:  
★ Law ----→ Theory ----→ Reasoning ----→ Hypothesis  
★ Hypothesis ----→ Theory ----→ Law ----→ Reasoning  
★ Hypothesis ----→ Reasoning ----→ Theory ----→ Law  
★ Law ----→ Hypothesis ----→ Reasoning ----→ Theory
- Correct way of writing a scientific name of an organism is:  
★ Rana Tigrina    ★ Rana tigrina    ★ rana tigrina    ★ R. tigrina
- The process which does not require energy input is:  
★ Active transport    ★ Diffusion    ★ Facilitated Diffusion    ★ Osmosis
- Stage of mitosis in which chromatids reach the pole and their movement cease:  
★ Prophase    ★ Metaphase    ★ Anaphase    ★ Telophase
- Enzymes are biocatalyst and mostly:  
★ Steriod in nature    ★ Protein in nature  
★ Lipid in nature    ★ Carbohydrate in nature
- Energy store in each mole of ATP is:  
★ 7.3 K.cal/mole    ★ 7.3 K.J/mole    ★ 17.3 K.cal/mole    ★ 17.3 K.J/mole
- Splitting of water in the presence of light is:  
★ Hydrolysis    ★ Glycolysis    ★ photolysis    ★ Thermolysis
- Deficiency of vitamin K cause:  
★ Rickets    ★ Anemia    ★ Scurvy    ★ Beri beri
- It involve in the clotting of blood:  
★ Platelets    ★ Haemoglobin    ★ Albumin    ★ Globulin
- The movement of organic material (food) in plants take place through:  
★ Xylem    ★ phloem    ★ Vessels    ★ Tracheid
- Secondary cell wall is made up of:  
★ Cellulose and Pectin    ★ Cellulose and Protein  
★ Cellulose and Lignin    ★ Lignin and Pectin



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## MODEL QUESTION PAPER

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### BIOLOGY (THEORY) (Class IX)

Time Duration  
2-1/2 hours

Science Group

Marks: 48

### SECTION "B" (SHORT ANSWER QUESTIONS) (Marks 30)

Answer any Ten questions from this section. Each question carries 03 marks.  
Answer should be clear and according to need. No extra detail is required.

- Q. 2 Write three differences between Prokaryotic cell and Eukaryotic cell.
- Q. 3 Define Immunology, Exocytosis and Plasmolysis.
- Q. 4 Write contribution of Jabir Bin Hayan, Abdul Malik Asmai and Bu Ali Sina in the field of Biology.
- Q. 5 Draw neat and labelled diagram of smooth muscles.
- Q. 6 Define any three types of chromosomes depending upon position of centromere.
- Q. 7 Why meiosis is called reduction division? Name different stages of Prophase-I of meiosis.
- Q. 8 Define Anaerobic and Aerobic respiration. Write chemical equation of aerobic respiration.
- Q. 9 Define Autotrophic nutrition and Heterotrophic nutrition. Write any one symptom of Nitrogen deficiency in plants.
- Q. 10 Draw a flowchart showing different types of plant tissues.
- Q. 11 What are Vitamins? Write about fat soluble and water soluble Vitamins.
- Q. 12 Write three fundamental postulates of Cell Theory.
- Q. 13 Define open circulatory system and closed circulatory system. Which one is found in man?
- Q. 14 Write a short account on Liver and its functions.
- Q. 15 Write any three differences between a plant cell and an animal cell.
- Q. 16 Define Parasitology, Developmental Biology and Pharmacology.

### SECTION "C" (DETAILED ANSWER QUESTIONS) (Marks 18)

NOTE: Attempt any THREE questions from this section. Each question carries 06 marks.

- Q. 17 Draw a neat and Labelled diagram of internal structure of Human Heart.
- Q. 18 Write a detailed note on animal tissues. (Diagram is not necessary)
- Q. 19 Define Photosynthesis. Name two phases of photosynthesis and describe any one of them.
- Q. 20 What are enzymes? Describe any five characteristics of enzymes.
- Q. 21 What is transpiration? Where it occurs? Explain the factors affecting rate of transpiration.