

BIOLOGY Class 9th
SSC-9th-Swat-2026

Time: 20 Minutes Marks: 12
 Multiple Choice Questions
 01 Mark for each

Paper Code

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Roll No. of the Student							
Serial No. Of the Answer Book _____							

SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A) (B) (C) (D), which one is correct with blue or black ball point in separate OMR Sheet like ●
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

I.i. The synthesis, breakdown, effects, side effects and delivery of drugs are studied in:

- (A) Environmental biology ● Pharmacology (C) Biotechnology (D) Genetics

ii. Observations based on color, taste, smell, and texture are classified as:

- Qualitative (B) Quantitative (C) Both qualitative and quantitative (D) Neither qualitative nor quantitative

iii. When a scientific name is typed, it should be in:

- (A) Bold form (B) Underlined form ● Italicized form (D) Straight form

iv. The term "protoplasm" for the living content of the cell was given by:

- (A) Jean Baptist de Lamarck (B) Robert Hooke (C) Robert Brown ● Jan Evangelista Purkinje

v. Tube-like cells responsible for water conduction are known as:

- Xylem (B) Phloem (C) Nerve (D) Muscle

vi. Division of the nucleus during cell division is termed as:

- (A) Mitosis ● Karyokinesis (C) Cytokinesis (D) Meiosis

vii. The phase responsible for the separation of homologous chromosomes is:

- (A) Prophase-I (B) Metaphase-I ● Anaphase-I (D) Telophase-I

viii. The process of break down of larger molecules into smaller ones refers to:

- (A) Anabolism ● Catabolism (C) Phototropism (D) Geotropism

ix. The primary photosynthetic pigment is:

- Chlorophyll a (B) Chlorophyll b (C) Carotene (D) Xanthophyll

x. Aerobic respiration is the major source of energy for:

- (A) Only anaerobic organisms ● Most organisms (C) Only plants (D) Only fungi

xi. One gram of protein when oxidized will give energy equivalent to:

- (A) 1 kilocalories (B) 2 kilocalories (C) 3 kilocalories ● 4 kilocalories

xii. While observing human cardiovascular system, the largest artery that appears is:

- Aorta (B) Pulmonary artery (C) Venae cavae (D) Renal vein

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Note: Time allowed for section B and C is 2 hours and 40 minutes.

SECTION "B"

Marks: 32

Attempt any EIGHT Parts out of the following. Each Part carries equal marks.

- i. Define organ system. Enlist any four organs of blood circulatory system of animals.
- ii. Differentiate between kingdom monera and kingdom fungi in terms of cell type, nuclear envelope, cell wall and mode of nutrition.
- iii. Briefly describe plastids, chloroplasts, chromoplasts and leucoplasts.
- iv. State any four differences between exocytosis and endocytosis.
- v. List any two events each of G1-phase and G2-phase.
- vi. Describe any two significances of meiosis.
- vii. Illustrate through diagrams the effects of temperature and pH on rate of enzyme activity.
- viii. Compare photosynthesis and respiration in terms of reactants and products formed.
- ix. List any four non-digestive functions of liver.
- x. How do high cholesterol and high blood pressure lead to myocardial infarction.
- xi. Describe white blood cells (leucocytes) in terms of structure, function, numbers and life span.

SECTION "C"

Marks: 21

Attempt any THREE questions of the following. Each question carries equal Marks.

1. (a) State any four characteristics of virus. 4
- (b) Explain the concept of proportion with reference to biological data. Also represent symbolically. 3
2. (a) State any four differences between skeletal muscle and smooth muscle. 4
- (b) List any three examples of apoptosis. 3
3. (a) Account for the importance of electron transport chain in respiration by stating:
a. stage of respiration b. maximum ATP generation
c. role of oxygen d. formation of water 4
- (b) State any two characteristics of active site according to lock and key model. 3
4. (a) Differentiate between sickle cell anemia and thalassemia in terms of symptoms and treatment. 4
- (b) Distinguish gastric ulcer, duodenal ulcer and oesophageal ulcer in term of site affected. 3