

Section A: Heredity and Evolution (15 Marks)

Q1. Multiple Choice Questions (5 Marks)

1. The basic unit of heredity is:
(a) Gene (b) Chromosome (c) DNA (d) RNA
2. The process of evolution is:
(a) Slow and gradual (b) Fast and sudden (c) Random (d) None of the above
3. Which of the following is an example of an acquired trait?
(a) Eye color (b) Muscle strength (c) Blood group (d) Hair color
4. The theory of natural selection was proposed by:
(a) Gregor Mendel (b) Charles Darwin (c) James Watson (d) Francis Crick
5. Variation is essential for:
(a) Survival of species (b) Extinction of species (c) No change in species (d) None of the above

Q2. Short Answer Questions (5 Marks)

1. Define heredity. Explain how traits are inherited from parents to offspring.
2. What is evolution? Describe the process of evolution with an example.
3. Differentiate between acquired and inherited traits.

Q3. Long Answer Question (5 Marks)

Explain the process of DNA replication and its significance in heredity.

Section B: Life Processes in Living Organisms Part-1 (15 Marks)

Q1. Multiple Choice Questions (5 Marks)

1. The process of intake of oxygen and release of carbon dioxide is called:
(a) Photosynthesis (b) Respiration (c) Digestion (d) Excretion
2. The green pigment in plants responsible for photosynthesis is:
(a) Chlorophyll (b) Hemoglobin (c) Myoglobin (d) Cytochrome
3. The process of breakdown of complex food substances into simpler ones is called:
(a) Respiration (b) Photosynthesis (c) Digestion (d) Excretion
4. The basic unit of life is:
(a) Cell (b) Tissue (c) Organ (d) Organ system
5. The process of removal of waste products from the body is called:
(a) Respiration (b) Photosynthesis (c) Digestion (d) Excretion

Q2. Short Answer Questions (5 Marks)

1. Explain the process of photosynthesis.
2. Describe the human digestive system with a labeled diagram.
3. What is the role of the respiratory system in the human body?

Q3. Long Answer Question (5 Marks)

Explain the process of cellular respiration, including its different types and their significance.