

Biology (New)

9th (Fresh/Reappear)

۱۔ ہر سوال کے ساتھ چار دائرے دیئے گئے ہیں، صرف تین جواب والا دائرہ بھریں۔

۲۔ دائروں کو شیڈ (بھرنے) کے لیے نیلے یا لالے رنگ کا مارکر استعمال کریں۔

۳۔ جواب میں ایک سے زائد دائرے بھرنے سے جواب غلط تصور ہوگا۔

Time: 20 Minutes

SECTION-A

Marks: 12

Q1: Choose the correct option i.e, A,B,C or D?

- Correct classification and scientific naming of organisms are the responsibilities of:
☐ Ecology ☐ Morphology
☒ Taxonomy ☐ Palaeontology
- A possible and tentative explanation to a biological problem is called:
☐ Observation ☒ Hypothesis ☐ Deduction ☐ Experiment
- In a biological name, the word written with a capital letter represents the:
☐ Species ☒ Genus ☐ Family-41 ☐ Class
- "All living organisms are made up of cellular tissue. This was stated by:
☒ Jean Baptist de Lamarck ☐ Robert Hooke
☐ Robert Brown ☐ Antony Van Leeuwenhoek
- A cell that helps in the defense system of the body is:
☐ Red blood cell ☒ White blood cell
☐ Muscle cell ☐ Nerve cell
- The phase of mitosis during which the nuclear membrane is reformed is:
☐ Prophase ☐ Metaphase ☐ Anaphase ☒ Telophase
- Meiosis is also termed as:
☐ Mitosis ☐ Division ☒ Reduction division ☐ Apoptosis
- Photosynthesis is an example of:
☒ Anabolism ☐ Catabolism ☐ Phototropism ☐ Geotropism
- In plants and algae, chlorophyll is mainly present in the:
☒ Chloroplast ☐ Ribosome
☐ Mitochondria ☐ Cell membrane
- The part of cell in which anaerobic respiration occurs is:
☐ Mitochondria ☒ Cytoplasm ☐ Chloroplast ☐ Nucleus
- The biomolecule required for growth and repair of our body is:
☐ Vitamins ☐ Fats ☐ Carbohydrates ☒ Proteins
- Slow blood flow in pulmonary circulation allows sufficient time for gaseous exchange due to:
☐ High pressure ☒ Low pressure
☐ Zero pressure ☐ Very high pressure

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Note: Time allowed for Section-B & Section-C is 2:40 hours.

SECTION-B

Marks: 32

Q2: Attempt any NINE parts. Each part carries FOUR marks.

- Q1: Define organ. Also give any two examples of organ with proper function.
- Q2: Enlist any four differences between kingdom plantae and kingdom animalia.
- Q3: Differentiate between Golgi apparatus and ribosomes in terms of structure and function.
- Q4: State how is plasmolysis different from deplasmolysis?
- Q5: Define interphase. State one major event of each sub-phase of interphase.
- Q6: Interpret the role of mitosis in growth and repair of worn out parts.
- Q7: State what is optimum temperature? Also show why does rate of enzyme action fall rapidly at high temperature?
- Q8: Briefly describe how is photosynthesis dependent on sunlight whereas respiration is independent of sunlight?
- Q9: Explain the structure and function of liver as a digestive gland.
- Q10: Why does myocardial infarction occur? State any four preventive measures of myocardial infarction.
- Q11: Distinguish between leucocytes and thrombocytes in terms of definition, number, function and life span.

SECTION-C

Marks: 21

Note: Attempt any THREE questions. All questions carry equal marks.

- Q12: (a) Interpret the parasitic nature of viruses. Also show how do they depend on host cells for metabolism? 4
(b) Define data analysis. Construct a statistical formula by which collected data is analyzed to solve a biological problem. 3
- Q13: (a) Briefly describe cartilage, bone, blood and adipose tissue as a type of connective tissue. 4
(b) Distinguish apoptosis and necrosis in any two aspects. 3
- Q14: (a) Explain the oxidation of acetyl-CoA during Krebs cycle with reference to products formed and reduction of coenzymes. 4
(b) Briefly explain the lock and key model. Also write the name of biologist who discovered it. 3
- Q15: (a) Define leukemia as a blood cancer. Also state why bones are easily fractured in patients suffering from leukemia. 4
(b) List any three causes of diarrhea. 3

