

Sig. of Supdt.....

KT-IX-1901

**Biology  
Fresh**

Roll No.....

Fig. No.....

**Time allowed: 3 Hrs**

**Code: E**

**Biology (9<sup>th</sup>)  
Fresh**

Fig. No.....

**Marks: 65**

**Note:** There are three sections of the paper, A, B & C. Carefully read the instructions for each section and attempt accordingly. Attempt all questions of section - (A) and return it to the superintendent within the given time.

**Time: 15 Mins**

**Section "A"**

**Marks: 12**

**Q.1** Write the correct option i.e. A, B, C or D in the empty box provided opposite to each part. Cutting, erasing and over writing will not be awarded.

- i. One of the following may function as a coenzymes for enzymes.  C  
A. Proteins                      B. Carbohydrates                      C. Vitamins                      D. DNA
- ii. Photosynthesis takes place in .....  A  
 A. Mesophyll cells                      B. Guard cells                      C. Phloem cells                      D. All of the above
- iii. The deficiency of which macronutrients causes chlorosis in plants?  C  
A. Carbon                      B. oxygen                       C. Nitrogen                      D. Calcium
- iv. System of binomial nomenclature was introduced by .....  A  
 A. Carolus Linnaeus                      B. Laveran                      C. A.F A King                      D. Nentow
- v. Maximum biodiversity is found in .....  A  
 A. Forest                      B. Grass land                      C. Desert                      D. Mountain
- vi. If  $2n = 8$ , for a particular cell, then the chromosome number in egg cell after meiosis would be .....  D  
A. 12                      B. 10                      C. 8                       D. 4
- vii. A branch of biology which deals with the study of classification of organism and their scientific naming is called  C  
A. Anatomy                      B. Physiology                       C. Taxonomy                      D. Cell biology
- viii. Which bio element makes most of the composition of organism's body?  C  
A. Hydrogen                      B. Carbon                       C. Oxygen                      D. Nitrogen
- ix. Which mosquito can transmit plasmodium in human beings?  A  
 A. Anopheles                      B. Culex                      C. Aedes                      D. All of these
- x. Closely related families are grouped into one .....  B  
A. Species                       B. Order                      C. Genera                      D. Phylum
- xi. The cell wall of fungi is made of .....  C  
A. Murejn                      B. Glucose                       C. Chitin                      D. Protein
- xii. Which organelles are covered with a double membrane?  D  
A. Ribosome                      B. Vacuoles                      C. Centrioles                       D. Mitochondria

**Biology**

Fresh

Time: 2 hours 45 minutes.

Marks: 53

**Section "B"**

Marks: 32

Q.2 Answer any EIGHT parts. All parts carry equal marks.

- i. Define morphology, taxonomy, parasitology and genetics.
- ii. What is multicellular organization?
- iii. Write the principles of classification.
- iv. How does deforestation lead to desertification?
- v. What is "Fluid Mosaic Model" of cell membrane?
- vi. How does turgor pressure develops in plant cell?
- vii. Differentiate between apoptosis and necrosis.
- viii. How are enzymes specific for the substrate?
- ix. What is alcoholic fermentation?
- x. Write the advantages of inorganic fertilizers.
- xi. Write any four functions of the blood plasma.

**Section "C"**

• Marks: 21

Note: Attempt any THREE of the following questions. All questions carry equal marks.

- Q.3
  - a. Write the contributions of Ibn-ul-Haithum, Al-Farabi, Ibn-ul-Nafees, Abdul Qasim Ali-Zahravi.
  - b. How human activities affect the biodiversity of arena?
- Q.4
  - a. Differentiate between epithelial tissues and nervous tissues.
  - b. Why oxidation and reduction important for plants?
- Q.5
  - a. Describe the mechanism of enzyme action.
  - b. Why oxidation and reduction important for plants?
- Q.6
  - a. Describe the oral cavity (Buccal Cavity) of human digestive system.
  - b. What is thalassaemia?