

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

SECTION "B"

Marks: 32

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

- i. How relationship of biology and animal sciences is important?
- ii. Why do five Kingdoms can't classify viruses to any kingdom system?
- iii. How Anton van Leeuwenhoek observed unicellular creatures? What term he used for them?
- iv. Describe role of sieve tube in phloem of plants and how companion cells help them to continue their function?
- v. Write importance of mitosis in cell division.
- vi. Differentiate between mitosis and meiosis with the help of following table.

Mitosis	Meiosis
Metaphase	
Metaphase	Metaphase-I
Anaphase	
Anaphase	Anaphase-I

- vii. What are the key features of lock and key model of enzyme action?
- viii. How ATP is formed in last step of aerobic respiration?
- ix. Column A contain some properties of vitamin C. Write their answer in column B.

Column A	Column B
Group	
Main function	
Signs of deficiency	
Main sources	

- x. How do stomata contribute to transpiration?
- xi. Explain the role of bicuspid valve in blood circulation.

SECTION "C"

Marks: 21

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

- III. (a) How does data help scientists to make hypothesis and conclude? 4
(b) Musk deer and Indus river dolphin are endangered animal species in Pakistan. Enlist reasons. 3
- IV. (a) How ribosome, cell wall, nucleus and plastids differentiate prokaryotic cell and Eukaryotic cell. 4
(b) Draw diagram of late prophase and indicate position of centromere. 3
- V. (a) Differentiate between prosthetic groups and coenzymes. 3
(b) Write steps involved in Krebs cycle. 4
- VI. (a) Write any Three risks of chemical fertilizers for soil. 4
(b) Differentiate between different layers of arteries. 3