

**School of Biomedical Science****B.Tech Biotechnology****Summer/Backlog****Semester End Examination - Jul 2024****Duration : 180 Minutes****Max Marks : 100****Sem II - Q1UH101T - Remedial Biology***General Instructions**Answer to the specific question asked**Draw neat, labelled diagrams wherever necessary**Approved data hand books are allowed subject to verification by the Invigilator*

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| 1)  | Define a cell and mention its characteristics.   | K1(2)  |
| 2)  | Explain the cell cycle, and why is it important for cell division and growth                           | K2(4)  |
| 3)  | Describe the functions of mitochondria.  | K2(6)  |
| 4)  | Illustrate the fluid-mosaic model of plasma membrane with suitable diagram.                            | K3(9)  |
| 5)  | Illustrate how natural selection operates in nature using specific examples, such as Darwin's finches. | K3(9)  |
| 6)  | Examine how do CAM plants minimize water loss during photosynthesis?                                   | K5(10) |
| 7)  | Analyze what is the role of abscisic acid in plant responses to stress.                                | K4(12) |
| 8)  | Examine and explain the classification system of Kingdom Animalia.                                     | K5(15) |
| 9)  | Examine the pathways through which water moves in plants.  | K5(15) |
| 10) | Elaborate the structure and functions of an eukaryotic cell and their organelles.                      | K6(18) |