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**School of Biological and Life sciences**  
Bachelor of Science in General Zoology Botany Chemistry  
Mid Term Examination - Mar 2024

Duration : 90 Minutes  
Max Marks : 50

**Sem VI - P1UG601B - Cytogenetics Plant Breeding and Nanotechnology**

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*

- 1) Show, what happen if there is no nucleolus in the cell? K2 (2)
- 2) Describe the structure of a typical eukaryotic chloroplast. K1 (3)
- 3) Illustrate the cell theory and its postulates. K2 (4)
- 4) Explain mesosome in a prokaryotic cell? Mention the function that it performs? K2 (6)
- 5) Select the differences between DNA and RNA. K3 (6)
- 6) Select the differences between prokaryotic and eukaryotic ribosomes. K3 (9)
- 7) Examine Which cell organelle is known as a powerhouse of cells & why? K4 (8)
- 8) Analyze the statement that " Plasma membrane is described as" protein iceberg in a sea of lipids". K4 (12)

**OR**

- Analyze the structure and functions of polytene chromosomes with a well labelled diagram. K4 (12)