



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 2nd Semester Examination, 2021

CC4-ZOOLOGY

CELL BIOLOGY

Full Marks: 40

ASSIGNMENT

The figures in the margin indicate full marks.

Answer any four questions

10×4 = 40

1. With the help of a suitable diagram write on the ultrastructure and functions of plasma membrane.
2. Describe the ultrastructure of Endoplasmic Reticulum with a special note on the structural and functional differences between RER and SER.
3. Describe the mechanism of vesicular transport by coated vesicles.
4. Elucidate the role of different actin-binding accessory proteins in polymerization, stabilization and crosslinking of microfilaments with suitable diagrams.
5. Give a brief account of different cell cycle check points and illustrate the role of CDKs and cyclins in cell cycle.
6. Discuss the role of the mitochondrial respiratory chain in electron transport during terminal respiration with special reference to chemiosmotic hypothesis.
7. Describe the Nucleosome organization of the chromatin fibre emphasising on the solenoid structure.
8. Describe the importance of second messenger in cell signalling through G protein coupled receptor.

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