[2]

- (b) Give an account of structure of Eukaryotic Chromosomes.
- 4.(a) Describe the cell cycle and the mechanism of mitosis.

OR

- (b) What is signal sequences? Give an account of targeting of proteins to mitochondria and chloroplast.
- 5.(a) Give an account of different experiment proofs of the semiconservative replication of DNA.

OR

- (b) Describe transcription and post-transcriptional modification.
- 6.(a) Illustrate the mechanism of protein synthesis in Eukaryotes with diagrams.

OR

(b) Give an account of trans lational proof reading and post translational modification of proteins.

## 2023

Full Marks - 70

Time - 3 Hours.

The figures in the right-hand margin indicate marks. Answer ALL questions.

## Section - A

- 1. Write notes on following: [5×4=20
- Active transport across plasma membrane.
- Nuclear membrane and transport traffiking.
- Mechanism of programmed cell death.
- Role of polymerase in DNA replication.
- Genetic code

## Section - B

2. Give an account of structure and models of Plasma membrane. [5×10=50

OR

Describe the properties and functional role of plasma membrane.

3.(a) Illustrate the structure of Mitochondria and electron transport in it.

OR