

**M.Sc DEGREE EXAMINATION, APRIL 2019**  
**I Year II Semester**  
**Cell Biology**

**Time : 3 Hours**

**Max.marks :75**

**Section A** ( $10 \times 2 = 20$ ) Marks

Answer any **TEN** questions

1. Symport
2. Pumps
3. Plasmodesmata
4. Autophagy
5. Oxidative phosphorylation
6. Replication
7.  $G_0$  Phase
8. Cyclins
9. Inversion
10. Kinetochore
11. Functions of vacuole
12. mtDNA

**Section B** ( $5 \times 5 = 25$ ) Marks

Answer any **FIVE** questions

13. List the electrical properties of cell membranes.
14. Describe the function of endoplasmic reticulum.
15. Draw the ultrastructure of nucleus.
16. What is cell cycle? Add a note on its significance.
17. Draw and describe polytene chromosome.
18. What is the role of ribosomes in protein synthesis?
19. Write a note on transposons.

**Section C** ( $3 \times 10 = 30$ ) Marks

Answer any **THREE** questions

20. Describe the fluid mosaic model of plasma membrane proposed by Singer and Nicholson.
21. Write in detail on the structure and function of cytoskeleton.
22. Draw and describe the ultrastructure of mitochondria. Explain its function in detail.
23. How does meiosis helps in continuity of heredity material through generations?
24. Write an esaay on chromosomal aberrations.

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