QP CODE: 24019208

24019208

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE EXAMINATIONS, MAY 2024

Second Semester

B.Sc Biotechnology Model III

Core Course - BT2CRT03 - CELL BIOLOGY

2017 ADMISSION ONWARDS

C68CA02C

Time: 3 Hours Max. Marks : 60

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Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What are the principles of cell theory?
2. What is the speciality of cell wall in prokaryotic cell ?
3. What are the main types of plant cells?
4. Comment on the micellar model of cell membrane.
5. What is pinocytosis?
6. What are integrins?
7. Comment on nuclear membrane.
8. Comment on centromere.
9. What are microfilaments?
10. What is S phase?
11. What is leptotene stage?
12. What is the need of cAMP?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write a note on the growth of Cell Biology in 19th century.

14. Write a note on the functions of non essential elements in cells.

15. Write a note on the role of lipid molecule in fluid mosaic model.

16. Compare and contrast the active transport and passive transport of cell membrane.

17. Describe the importance of satellite DNA.

18. What is karyotyping? Explain its significance.

19. Differentiate and explain autophagy and autolysis.

20. Explain the steps involved in apoptosis.

21. Explain the characteristics of cancer cells?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain the structure and functions of tight junctions and gap junctions.

23. Explain different types of chromatins and its features in detail.

24. Explain in detail functions of mitochondria with the help of diagrams.

25. Explain the mechanism of regulation of cell cycle

(2×10=20)