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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, JULY 2023

Second Semester

Core Course—IV

CELL BIOLOGY

(for B.Sc. Biotechnology)

[2013—2016 Admissions]

Time : Three Hours Maximum Marks : 80

Part A (Short Answer question)

Answer **all** *questions.*

Each question carries 1 *mark each.*

1. Mention importance of double staining.
2. Write about cell adhesion molecule.
3. Name a fixative.
4. Write about permeability of plasma membrane.
5. What are fluorophores ?
6. Write a note on cristae in mitochondria.
7. Write about extrinsic proteins.
8. What is apoptosis ?
9. Name two acid stains.
10. Write a note on lipid components in plasma membrane.

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any **eight** *questions.*

Each question carries 2 *mark.*

11. Write a note on lysosomes.
12. Explain double staining.

Turn over

13. Write an account on ribosomes.

14. Write about necrosis

15. Write an account on nuclear membrane.

16. Mention the importance of G protein in cell signaling.

17. Write about cell junction.

18. Explain functions of Golgi complex.

19. Differentiate symport and antiport.

20. Write about two fixatives.

21. Explain cell theory.

22. Write about MPF.

(8 × 2 = 16)

Part C (Short Essays)

Answer any **six** *questions.*

Each question carries 4 *marks.*

23. Write about active and passive transport.

24. Explain immunocytochemistry.

25. Write a note on tissue fixation.

26. Differentiate prokaryotic and eukaryotic cell.

27. Explain structure of chloroplast.

28. Write a note on ER.

29. Give an account of microtubular organelles.

30. Write about fluorescent microscopy.

31. Give an account on cell signaling.

(6 × 4 = 24)

Part D (Long Essays)

Answer any **two** *questions.*

Each question carries 15 *marks.*

32. Illustrate and explain structure and function of mitochondria.

33. Explain the structure and function of plasma membrane.

34. Describe the functioning and uses of SEM and TEM.

35. Describe cell stages.

(2 × 15 = 30)