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(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2019

Second Semester

Core Course IV—CELL BIOLOGY

(For B.Sc. Biotechnology)

[2013 to 2016 Admissions]

Time : Three Hours

Maximum Marks : 80

Part A (Short Answer Questions)

Answer all questions.

Each question carries 1 mark.

1. Mention uses of DPX.
2. Write about ribosomes.
3. Enlist uses of Xylene.
4. What are grana ?
5. Write about cyclins.
6. Mention importance of tyrosine kinase.
7. What are the uses of condenser in microscope ?
8. Name a natural stain.
9. What is apoptosis ?
10. Mention functions of peroxisomes.

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any eight questions.

Each question carries 2 marks.

11. Write about properties of lysosomal enzymes.
12. Explain Cell-cell adhesion.
13. What is mitosis ?
14. Mention characteristic features of Golgi complex.
15. Write about importance of ER.
16. Write a note on role of microfilaments.

Turn over

17. Explain principle of fluorescent microscopy.
18. Write about fixatives.
19. Mention functions of mitochondria.
20. Differentiate symport and antiport.
21. Write about necrosis.
22. Explain cell theory.

(8 × 2 = 16)

Part C (Short Essay Type Questions)

*Answer any six questions.
Each question carries 4 marks.*

23. Give an account of G protein coupled receptors.
24. Describe steps in meiosis.
25. Describe structure and functions of chloroplast.
26. Explain immunocytochemistry.
27. Illustrate the structure of nucleus.
28. Explain passive and facilitated transport.
29. Write an account on cell signaling pathways.
30. Explain cell fractionation techniques.
31. Write about classification of chromosomes based on shape.

(6 × 4 = 24)

Part D (Long Essays)

*Answer any two questions.
Each question carries 15 marks.*

32. Explain principle and functioning of electron microscope. Mention the uses.
33. Describe the structural organization of eukaryotic cell.
34. Explain structure and function of cell membrane.
35. Write an account on cell cycle and importance of each stages.

(2 × 15 = 30)