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(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2018

Second Semester

Core Course IV—CELL BIOLOGY

(For B.Sc. Biotechnology)

[2013—2016 Admissions]

Time : Three Hours

Maximum Marks : 80

Part A (Short Answer Questions)

Answer all questions.

1 mark each.

1. Mention functions of vacuole.
2. Write about cDNA
3. What are the uses of FAA?
4. What is cytokinesis ?
5. Mention importance of staining.
6. What is MPF ?
7. Enlist uses of xylene.
8. Write about uses of Canada balsam.
9. What is cell signaling ?
10. What is fluorescence ?

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any eight questions.

2 marks each.

11. Write about uses of Hematoxylin.
12. Enlist uses of formaldehyde in a biology lab.
13. Write a note on stages in cell cycle.
14. Write about tyrosine kinase.
15. Explain immunocytochemistry.
16. What is facilitated transport ?

Turn over

17. What are cyclins? Mention the importance
18. Mention uses of double staining.
19. Explain cell fractionation.
20. Differentiate smooth and rough ER.
21. Enlist parts of a light microscope.
22. Write a note on cell junction.

(8 × 2 = 16)

Part C (Short Essay Type Questions)

*Answer any six questions.
4 marks each.*

23. Explain different stages of mitosis.
24. Differentiate microfilaments and microtubules. Mention functions of both.
25. Explain principles behind cell fixation. Write about commonly used fixatives.
26. Explain cell-cell adhesion.
27. Illustrate structure and function of mitochondria.
28. Differentiate necrosis and apoptosis.
29. Write a note on lysosome and peroxisomes.
30. Explain importance of G proteins in cell signaling.
31. Give an account on membrane transport.

(6 × 4 = 24)

Part D (Long Essays)

*Answer any two questions.
15 marks each.*

32. Explain structure and function of cell membrane.
33. Explain meiosis. Mention the significance.
34. Describe structural organization of prokaryotic cell. How is it different from eukaryotic cell ?
35. Explain principles and working of SEM and TEM.

(2 × 15 = 30)