

E 2206

(Pages : 2)

Reg. No.....

Name.....

**B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2015**

**Second Semester**

Core Course IV—CELL BIOLOGY

(For B.Sc. Biotechnology)

(2013 Admission onwards)

Time : Three Hours

Maximum : 80 Marks

**Part A**

*Answer all questions.  
1 mark each.*

Short Answer questions :

1. What are leucoplasts ?
2. What is symport ?
3. What are peroxisomes ?
4. Write about functions of Golgi complex.
5. What are cyclines.
6. Name two fixatives.
7. What is cell fractionation ?
8. Write about nucleosome.
9. What are microtubules ?
10. Write about two functions of Cell membrane.

(10 × 1 = 10)

**Part B**

*Answer any eight questions.  
2 marks each.*

Brief answer questions :

11. Give a brief account of structure and function of lysosomes.
12. Give an account of Necrosis and apoptosis.
13. Write about fluorescent microscopy.
14. Give an account of smooth and rough ER.
15. Write about significance of meiosis.

Turn over

16. Give an account of function of mitochondria.
17. Explain structure of chromosome at Metaphase stage.
18. Write a note on cell-cell adhesion.
19. Write about Chromonemata.
20. Give an account of peroxisomes.
21. Write a note on evolution of eukaryotic cell.
22. Explain microfilaments and microtubules.

(8 × 2 = 16)

### Part C

*Answer any six questions.  
4 marks each.*

Short Essay type :

23. Explain stages of cell cycle.
24. Describe SEM and TEM.
25. Give an account on membrane transport.
26. Explain structure of nucleus.
27. Give a note on cell signalling.
28. Write about major stains used in microtechnique.
29. Give an account of chemical components of cell.
30. Explain cytoskelton of cell.
31. Write a note on development of cell biology.

(6 × 4 = 24)

### Part D

*Answer any two questions.  
15 marks each.*

Long Essays :

32. Explain Structure and function of chloroplast.
33. Write about fluid mosaic model for cell membrane with diagram.
34. Illustrate structure of prokaryotic cell.
35. Explain Mitosis and its significance.

(2 × 15 = 30)