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Reg. No.....

Name.....

**B.Sc. DEGREE (C.B.C.S.) EXAMINATION, JUNE 2018**

**Second Semester**

Core Course

BT 2CRT 03 – CELL BIOLOGY

(Biotechnology M III Programme)

[2017 Admissions only]

Time : Three Hours

Maximum : 60 Marks

**Part A**

*Answer any ten questions.*

*Each question carries 1 mark.*

1. What is Cyclic AMP?
2. Define Pinocytosis.
3. State the cell theory.
4. Heterochromatin.
5. What is the function of Telomere?
6. Define Symport.
7. What are glyoxysomes?
8. What is Linker DNA?
9. Cyclins.
10. What are Desmosomes?
11. CAM Plants.
12. What is the use of Feulgan stain?

(10 × 1 = 10 marks)

**Part B**

*Answer any six questions.*

*Each question carries 5 marks.*

13. What are the difference between Prokaryotic and Eukaryotic cells?
14. Describe Polytene Chromosomes.
15. Comment on the various Lysosomal enzymes.

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16. What are the characteristics of cancer cells?
17. Briefly explain the structure of Chloroplast.
18. Differentiate between Apoptosis and Necrosis.
19. What is Cytoplasmic Inheritance?
20. Explain the significance of Cadherins.
21. Comment on the regulation of cell cycle.

(6 × 5 = 30 marks)

### **Part C**

*Answer any two questions.*

*Each question carries 10 marks.*

22. Explain Mitotic cell division with suitable diagrams.
23. With the help of a labelled diagram, describe a typical cell and its constituents.
24. Elaborate on the structural organisation of chromosome in Eukaryotes.
25. What are the structure features of Mitochondrion? Why it is called as 'the power house of the cell'? Explain.

(2 × 10 = 20 marks)