

**First Semester B.Sc. Degree Examination,
October/November 2019**

(CBCS Scheme)

Biotechnology

Paper I – CELL BIOLOGY AND GENETICS

Time : 3 Hours]

[Max. Marks : 90

Instructions to Candidates : Draw labelled diagram wherever necessary.

PART – A

Answer any **TEN** of the following :

(10 × 2 = 20)

1. Desmosomes
2. Active transport
3. Chromonema
4. Autophagasomes.
5. G₁-phase
6. Lignin
7. Genoty pc
8. Back cross
9. ISO antigen
10. Colour blindness
11. Deletions
12. Pedigree analysis.



PART – B

Answer any **SIX** of the following :

(6 × 5 = 30)

13. Explain the ultrastructure of plant cell.
14. Endoplasmic Reticulum.
15. Cytoplasmic inheritance in mirabalis.

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16. Describe sex determination in animals.
17. Write a note on coupling and repulsion hypothesis.
18. Ciliary movement.
19. Structural aberrations.
20. Turner's syndrome.

PART – C

Answer any **FOUR** of the following :

(4 × 10 = 40)

21. Explain nucleosome mode of chromosome. Classify the chromosome based on centromere.
 22. Describe the Mitosis in detail.
 23. Explain interaction of genes in comb pattern in fowls.
 24. What is Mutation? Explain spontaneous Mutation in detail.
 25. Explain the structure of Mitochondria and add a note on its significance.
 26. What are Multiple alleles? Explain ABO blood groups in human.
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