



GN-278

100652

I Semester B.Sc. Examination, December - 2019
(CBCS) (F+R)

BIOTECHNOLOGY - I
CELL BIOLOGY AND GENETICS

Time : 3 Hours

Max. Marks : 70

Instruction : Draw **neat** labelled diagrams **wherever** necessary.

SECTION - A

I. Write short notes on the following :

5x2=10

1. Cell Theory
2. Primary Cell Wall
3. Apoptosis
4. Petite Character
5. Cri-Du-Chat syndrome



SECTION - B

II. Answer **any four** of the following :

4x5=20

6. Explain Fluid Mosaic Model of Plasma membrane.
7. Describe ribosomes in detail.
8. Explain incomplete dominance with an example.
9. Define Linkage. Explain linkage in maize.
10. Explain chromosome structural aberrations.

P.T.O.

**SECTION - C****III.** Answer **any three** of the following :**3x10=30**

11. Explain : (a) Folded-Fibre model of chromosome
(b) Polytene chromosomes
12. Explain the structure and functions of Mitochondria and Golgi Complex.
13. Describe mitosis in detail and add a note on its significance.
14. (a) Explain Epistasis with a suitable example.
(b) What is sex determination ? Explain ZO-ZZ, ZW-ZZ types.
15. (a) Explain mutation at molecular level.
(b) Describe B-DNA.

SECTION - D**IV.** Answer the following in **a word** or **a sentence each** :**10x1=10**

16. Idiogram
17. Plastid Inheritance
18. Haploid
19. Chromonemata
20. Aging
21. Non-allelic gene interaction
22. Nuclear Pore Complex
23. Allosomes
24. Microtubules
25. Supplementary factor

