



23126978

QP CODE: 23126978

Reg No :

Name :

**B.Sc DEGREE (CBCS) REGULAR / IMPROVEMENT / REAPPEARANCE
EXAMINATIONS, OCTOBER 2023**

Third Semester

B.Sc Biotechnology Model III

CORE COURSE - BT3CRT07 - GENETICS

2017 Admission Onwards

57EAFCCC

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

Each question carries 1 mark.

1. What is Inbreed lines & purelines?
2. Define lethal genes.
3. What is genic balance theory?
4. What is sex linked genes?
5. Who discovered barr body?
6. What is variations in evolution?
7. Define microevolution.
8. How are gene mutations involved in evolution?
9. Define pedigree chart.
10. What is cystic fibrosis?
11. Define gene pool.
12. What is the Hardy weinberg equilibrium formula?

(10×1=10)

Part B

*Answer any **six** questions.*

Each question carries 5 marks.





13. Write notes on Mendels work.
14. Explain polygene concept with examples.
15. Describe the complete & in complete linkage with examples.
16. Explain the sex limited genes with examples.
17. What are the characteristics of extrachromosomal inheritance?
18. What are the applications of karyotyping?
19. Explain types of Cancer genes.
20. What are the factors affecting allelic frequency?
21. What is the significance of random mating?

(6×5=30)

Part C

*Answer any **two** questions.
Each question carries **10** marks.*

22. Explain the allelic and non-allelic gene interactions.
23. Illustrate the types of chromosomal mechanisms for sex determinations.
24. Explain the extrachromosomal inheritance in mitochondria with examples.
25. Explain chromosomal anomalies and human disorders.

(2×10=20)

