



21101940

QP CODE: 21101940

Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, AUGUST 2021

Third Semester

B.Sc Biotechnology Model III

CORE COURSE - BT3CRT07 - GENETICS

2017 Admission Onwards

BCC9ED8F

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Define homologous & heterologous.
2. Define monohybrid & dihybrid crosses.
3. What are the types of sex determination mechanisms?
4. Give examples of sex limited genes.
5. Who discovered barr body?
6. What is poky & petite?
7. What are the two type of mutation based on type of chromosome it occurs?
8. What is missense & nonsense mutation?
9. What is trisomy?
10. List any two chromosomal disorders in man.
11. What is assortive mating?
12. Explain Hardy weinberg law.

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

13. Write the explanation for Mendel's Monohybrid cross.





14. What are the disorders caused by lethal genes in man?
15. Describe the complete & in complete linkage with examples.
16. What are the kinds of crossing over?
17. What are the variations in chromosome numbers?
18. Explain pedigree analysis with diagrams.
19. Explain types of Cancer genes.
20. What are the factors affecting genetic variations?
21. What are the factors affecting allelic frequency?

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain multiple alleles with suitable examples.
23. Illustrate the sex linked inheritance with suitable examples.
24. Explain the role of mutations in evolution.
25. Explain the process of karyotyping & pedigree analysis.

(2×10=20)

