



22100525

QP CODE: 22100525

Reg No :

Name :

**B.Sc DEGREE (CBCS)REGULAR / REAPPEARANCE EXAMINATIONS,
APRIL 2022**

Third Semester

B.Sc Biotechnology Model III

CORE COURSE - BT3CRT07 - GENETICS

2017 Admission Onwards

21F00073

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. List out the pairs of characters in mendels experiments.
2. What is polygenic inheritance?
3. What is coupling & repulsion?
4. What are the characteristics of linked genes?
5. What is X-linked inheritance?
6. Where the chlorplast DNA is located?
7. What are the two type of mutation based on occurrence?
8. What are the effects of mutation?
9. What are the pedigree chart symbols?
10. What are chromosome disordes?
11. Define panmixis.
12. What are conditions to maintain genetic equilibrium?

(10×1=10)





Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Describe the cytological explanation for segregation.
14. What are complementary genes? write an example?.
15. Explain the types of sex determining mechanisms.
16. Explain the sex influenced genes with examples.
17. Explain some human disorders in ploidy.
18. What is the significance of dyes used in karyotyping?
19. Explain sex chromosomal anomalies with examples.
20. Explain the types of 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. Explain crossing over, mechanisms and its significance.
24. Describe the classification of various types of mutations.
25. Discuss about the genetics of cancer.

(2×10=20)

