QP CODE: 21100465

21100465

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS)EXAMINATION, MARCH 2021

Third Semester

B.Sc Biotechnology Model III

Core Course - BT3CRT07 - GENETICS

2017 Admission Onwards

3862DD46

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

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

1. Define dominant & recessive genes?
2. What is quantitative inheritance?
3. What is criss cross inheritance?
4. What are the sex linked inheritance?
5. Give examples of sex influenced genes.
6. Define heteroploidy.
7. Define marcroevolution.
8. How are gene mutations involved in evolution?
9. Name two dyes used in karyotyping.
10. What is Pedigree analysis?
11. How are allele frequencies related to evolution?
12. Define panmixis.

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Explain Mendel's law of seggregation with example.

14. Explain lethal genes with examples.

15. What is the role of cytoplasmic factors involved in sex determining mechanisms?

16. Explain Lyon hypothesis.

17. What are the differences between Mendelian and Non Mendelian inheritance?

18. Explain different chromosomal anomalies with examples.

19. Describe the process of cancer therapy and its importance.

20. Explain the types of genetic variations.

21. What are the factors affecting genetic equlibrium?

(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. Explain the extrachromosomal inheritance in mitochondria with examples.

25. Explain the genetic disorders caused in humans and its charecteristics.

(2×10=20)