18103325

QP CODE: 18103325

Reg No : .....

Name : .....

B.Sc. DEGREE (CBCS) EXAMINATION, NOVEMBER 2018

Third Semester

B.Sc Biotechnology Model III

CORE COURSE - BT3CRT07 - GENETICS

2017 Admission Onwards

F7478DBE

Maximum Marks: 60 **Time: 3 Hours**

Part A

Answer any **ten** questions.

Each question carries **1** mark.

1. What is punnet square?
2. What is intergenic & intragenic interactions?
3. What is terminalization?
4. What is genic balance theory?
5. What is X-linked inheritance?
6. Write the significance of cytoplasmic inheritance?
7. What is point mutation?
8. Distinguish mutation & evolution.
9. What is cystic fibrosis?
10. Define phenylketonuria.
11. What is genetic drift?
12. Explain genenetic equlibrium.

(10×1=10)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Write notes on Mendels work.
14. Explain Mendels law of Independent assortment with example.

15. Explain the sex limited genes with examples.

16. Explain dosage compensation.

17. Why three level laser is always pulsed?

18. What are the applications of karyotyping?

19. Explain pedigree analysis with diagrams.

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 role of mutations in evolution.

25. Explain chromosomal anomalies and human disorders.

(2×10=20)