THIRD SEMESTER (CBCSS–UG) DEGREE EXAMINATION NOVEMBER 2021

Genetics

GEN 3B 04—BASIC GENETICS

(2019—2020 Admissions)

Time : Two Hours   Maximum : 60 Marks

Section A

Answer atleast **eight** *questions.*
Each question carries 3 marks.
All questions can be attended.
Overall ceiling 24.

1. What is trisomy ?

2. What is the effect of colour blindness ?

3. Comment on expressivity.

4. Write a note on SRY.

5. What is barr body ?

6. Write notes on autosomes and allosomes.

7. What is deletion ? What is its significance ?

8. What are lampbrush chromosomes ? Where are they found ?

9. Define structural chromosomal aberration.

10. Differentiate between a karyotype and an idiogram.

11. Write a short note on polytene chromosome.

12. Reason for Mendel's success in his experiment.

$(8 \times 3 = 24 \text{ marks})$

Section B

Answer atleast **five** *questions.*
Each question carries 5 marks.
All questions can be attended.
Overall ceiling 25.

13. Explain co-dominance.

14. Explain the morphology of the salivary gland chromosomes.

Turn over

15. Write a detailed note on Euploidy.

16. What is sex influenced traits ?

17. Explain the different types of mechanisms of sex determination.

18. Describe the numerical chromosomal variations.

19. Explain supplementary gene interaction.

(5 × 5 = 25 marks)

Section C

Answer any **one** *questions.*

Each question carries 11 *marks.*

20. Write an essay on multiple alleles with appropriate examples.

21. Write an essay on dominant epistasis with suitable examples and Punnet's square.

(1 × 11 = 11 marks)