

**FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2022**

Zoology

ZOL 4C 04T—GENETICS AND IMMUNOLOGY

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A

*Answer at least **eight** questions.*

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 24.

1. What is polygenic inheritance? Give an example.
2. What are gynandromorphs?
3. What are transposons?
4. What is amniocentesis?
5. Give a brief note on barr body.
6. Differentiate between carcinoma and sarcoma.
7. Distinguish between transcription and reverse transcription.
8. What are monoclonal antibodies? Give its applications.
9. What is X-linked inheritance? Give an example.
10. What is ELISA?
11. What are attenuated vaccines? Give an example.
12. What is Y-linked inheritance? Give an example.

(8 × 3 = 24 marks)

Turn

Section B

*Answer at least **five** questions.*

Each question carries 5 marks.

All questions can be attended.

Overall Ceiling 25.

13. Briefly describe the genetic basis and symptoms of sickle cell anemia.
14. Write the major characteristics of genetic code.
15. What are cloning vectors ? Briefly mention any four types of cloning vectors.
16. Write a brief note on the principle, procedure and applications of DNA finger printing.
17. Give a brief description on immuno-deficiency diseases ?
18. Briefly describe the role of enzymes in recombinant DNA technology.
19. Write a note on phenylketoneuria.

$(5 \times 5 = 25 \text{ m})$

Section C

*Answer any **one** question.*

The question carries 11 marks.

0. Describe the Patau and Denver system of classification of human chromosomes.
1. Write an essay on autoimmune diseases.

$(1 \times 11 = 11 \text{ m})$