

C 21560

(Pages : 2)

Name.....

Reg. No.....

**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 over**

**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 × 5 = 25 marks)

**Section C**

*Answer any **one** question.*

*The question carries 11 marks.*

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

(1 × 11 = 11 marks)