

**D 120604****(Pages : 2)****Name.....****Reg. No.....****FOURTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION  
APRIL 2025****Zoology****ZOL 4C 04T—GENETICS AND IMMUNOLOGY****(2019—2023 Admissions)****Time : Two Hours****Maximum : 60 Marks****Section A****I. Short Answer Questions. Each question carries 2 marks :**

- 1 Name two sex - chromosomal anomalies.
- 2 What is Amniocentesis ?
- 3 Explain Gynandromorphism.
- 4 What are Pseudogenes ?
- 5 Comment on cistrons.
- 6 What are Plasmids ?
- 7 What is reverse transcriptase ?
- 8 Distinguish between sarcoma and lymphoma.
- 9 What is innate immunity ?
- 10 What are Cytokines ?
- 11 What are monoclonal antibodies ?
- 12 Comment on DNA vaccines.

**(Ceiling : 20 marks)****Section B****II. Paragraph Questions. Each question carries 5 marks :**

- 13 Describe the Denver scheme of classification of human chromosome.
- 14 Explain chromosomal mechanism of sex determination.

**Turn over**

- 15 Define genetic code. Mention its salient features.
- 16 Explain various gene transfer techniques.
- 17 Enumerate the characteristics of cancer cells.
- 18 Write an account on any *two* secondary lymphoid organs.
- 19 Write notes on Western and Northern blotting techniques.

(Ceiling : 30 marks)

### Section C

III. Essay Questions. Answer any *one* question :

- 20 Give an account of the enzymes involved in rDNA technology.
- 21 Write an essay on immunodeficiency diseases.

(1 × 10 = 10 marks)