Code No. 6514

## **FACULTY OF SCIENCE**

B.Sc. V Semester (CBCS) Examination, March 2022

Subject: Zoology

Paper – V (C) : Immunology & Animal Biotechnology

Note: Answer any eight questions.

PART - A

Max. Marks: 80

 $(8 \times 4 = 32 \text{ Marks})$ 

Cells of the Immune system

Phagocytosis Types of Immunity

Antibodies

Adjuvants

Plasmids Immunodeficiency diseases

Shuttle vectors

Cosmids

10. Invitro Fertilization

14. Embryo transfer 12. Stem cells

PART - B

 $(4 \times 12 = 48 \text{ Marks})$ 

Note: Answer any four questions.

13. Write in detail about the first line of defenses and add a note on Inflammation.

14. Explain Major Histocompatibility Complex (MHC) with structure & function of class I and class II proteins.

15. Describe hypersensitivity reactions.

16. Describe monoclonal antibodies and applications.

メモxplain transgenesis and methods of transgenesis

18. Explain Scope of Animal Biotechnology.

19. Elucidate on hybridoma Technology.

20. Elucidate on Animal Bioreactors.

FACULTY OF SCIENCE
B.Sc. (CBCS) V Semester Examination, December 2023 / January 2024

Subject: Zoology

Paper – V (C): Immunology and Animal Biotechnology

Time: 3 Hours

Note: Answer any eight questions.

 $(8 \times 4 = 32 \text{ Marks})$ 

Max. Marks: 80

Humoral immunity B lymphocytes
 Inflammation

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Haptens

Rheumatoid arthritis Cosmids

Yeast episomal plasmid

9. Transgenic sheep 10. Types of stem cells

11. Bacillus thuringiensis

 $(4 \times 12 = 48 \text{ Marks})$ 

## Note: Answer all the questions.

13.(a) Define immunity and explain various types of immunity.

(b) Explain structure and function of major histocompatibility.

14. (a) Write an essay on monoclonal antibodies and its applications.

(b) Define hypersensitivity and explain various hypersensitivity reactions.

15.(a) What is Transgenesis and explain various methods of Transgenesis.

(b) Explain recombinant DNA technology and its applications

16. (a) Explain concept of animal bioreactors and its application.

(b) Explain concept of Biopesticides.