19P314	(Pages: 1)	Name
		Reg. No

## THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2020 (CUCSS-PG)

## CC19P ZO3 C07 - IMMUNOLOGY AND CELL BIOLOGY

(Zoology)

(2019 Admission Regular)

Time: Three Hours Maximum: 30 Weightage

- I. Answer any *four* questions.
  - 1. Give an account of principles of cell communication.
  - 2. Differentiate innate and acquired immunity.
  - 3. Write about CD8+ cytotoxic cells (Tc cells)
  - 4. Explain radioimmunoassay (RIA)
  - 5. Describe the role of MHC in immune system.
  - 6. Write about apoptosis and the genes involved in it.
  - 7. Discuss about antibody engineering.

 $(4 \times 2 = 8 \text{ Weightage})$ 

## II. Answer any four questions

- 8. Write about the structure of C1 macromolecular complexes and explain classical pathway in complement system.
- 9. Give an account of autoimmune diseases.
- 10. Explain the process of inflammation.
- 11. Elaborate on the role of IgE in type-I hypersensitivity.
- 12. Discuss the structure of antibody. Write a note on different classes of antibody.
- 13. Write down the general properties of cytokines and write briefly about cytokine antagonists.
- 14. Describe the immunological basis of graft rejection.

 $(4 \times 3 = 12 \text{ Weightage})$ 

## III. Answer any two questions

- 15. Explain various types of vaccines and their importance in preventing diseases.
- 16. Write in detail, the maturation and differentiation of B cells.
- 17. Elaborate the different pathways in antigen processing and presentation.
- 18. Give a detailed account on types and roles of cell adhesion molecules.

 $(2 \times 5 = 10 \text{ Weightage})$