

21P314

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Name:

Reg.No:

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022

(CBCSS - PG)

(Regular/Supplementary/Improvement)

CC19P ZO3 C07 - IMMUNOLOGY AND CELL BIOLOGY

(Zoology)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part-A

Answer any **four** questions. Each question carries 2 weightage.

1. Differentiate between immunogenicity and antigenicity.
2. What is class switching?
3. Briefly describe CD3 complex.
4. Explain the arrangement of human MHC gene.
5. Explain endogenous pathway of antigen presentation.
6. Explain Type IV hypersensitivity.
7. Explain IP3/ DAG pathway.

(4×2 = 8 Weightage)

Part-B

Answer any **four** questions. Each question carries 3 weightage.

8. Describe in detail various lines of defence in innate immunity.
9. Explain in detail various antigen-antibody interactions.
10. Describe the classical pathway of complement activation.
11. Explain the process of inflammation.
12. Elaborate on synthetic peptide vaccines. Comment on their advantages.
13. Explain interactions of cells with extracellular matrix.
14. Describe the process of apoptosis and its regulations.

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Cytologically differentiate T lymphocytes and B lymphocytes. Explain their development and differentiation.
16. Describe the principle and working of Western blot. Comment on its major applications.
17. Discuss the characteristics of autoimmune diseases and differentiate organ specific and systemic types with examples.
18. Explain in detail, the molecular organization and the electrical properties of cell membrane

(2 × 5 = 10 Weightage)
