

17P322

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Name:

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2018

(CUCSS-PG)

CC17P ZO3 CT07 - IMMUNOLOGY AND CELL BIOLOGY

(Zoology - Regular)

(2017 Admission)

Time: Three Hours

Maximum: 36 Weightage

I. Answer **all** the fourteen questions:

1. What is immunogenicity?
2. Explain the role of selectins and cadherins.
3. What is immunoprecipitation?
4. What are NK cells?
5. Write notes on VDJ recombination.
6. Explain the arrangement of human MHC genes.
7. Briefly describe the significance of CD3 complex.
8. What are immunoblots?
9. What are interferons? Explain their function.
10. Explain the role of Toll like receptors.
11. What is meant by cross reactivity?
12. What are desmosomes?
13. What is calmodulin?
14. What are haptens? Give one example.

(14 x 1 = 14 Weightage)

II. Answer any **seven** questions:

15. Explain the process of receptor desensitization.
16. Give a brief account on the regulation of intracellular transport.
17. Discuss the structure of Class I and Class II MHC molecules.
18. Write notes on synthetic peptide vaccines. Comment on their advantages.
19. Discuss the immune responses during tuberculosis.
20. Elaborate on the activation and regulation of compliment system.
21. Explain how the cells interact with extra cellular matrix.
22. Write on the characteristics of organ specific autoimmune diseases.
23. Explain the immunologic basis of graft rejection.

24. Discuss the structure of IgG antibody.

(7 x 2 = 14 Weightage)

III. Answer any *two* questions:

25. Give an account of the process and mechanism of B cell activation and differentiation.

26. Explain the process of apoptosis and its regulation.

27. Write an account on the Gell and Coombs classification of hypersensitivity reactions.

28. Discuss the major pathways of antigen processing and presentation .

(2 x 4 = 8 Weightage)
