

18P322

(Pages:2)

Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2019

(Regular/Supplementary/Improvement)

(CUCSS-PG)

(Zoology - Regular)

CC17P ZO3 C07 - IMMUNOLOGY AND CELL BIOLOGY

(2017 Admission onwards)

Time: Three Hours

Maximum: 36 Weightage

I. Answer *all* questions. Each question carries 1 weightage.

1. Differentiate between innate immunity and adaptive immunity.
2. Comment on Adjuvants.
3. Write notes on APCs.
4. What is prozone effect?
5. Distinguish between Class I and Class II MHCs.
6. Explain cross reactivity with an example.
7. Comment on DNA vaccine.
8. What are Chemokines?
9. X- linked agammaglobulinemia.
10. Briefly explain Toll like receptors.
11. Comment on Fv libraries.
12. Explain the role of cytochrome C in apoptosis.
13. Comment on receptor signaling involved in bacterial chemotaxis.
14. What are cell adhesion molecules?

(14 x 1 = 14 Weightage)

II. Answer any *seven* questions. Each question carries 2 weightage.

15. Give an account of the signal transduction complex of T cell receptor.
16. What is ELISA? Explain its principle and different types.
17. Elaborate the cytosolic pathway of antigen processing and presenting.
18. Write notes on cytokine antagonists.
19. Comment on type IV hypersensitivity reaction.
20. Explain the hybridoma technology and selection of hybridoma cells.
21. Describe the immune responses during bacterial infections.
22. Briefly explain the regulation of apoptosis.
23. Write an account on molecules involved in intercellular attachments.
24. Give an account of the molecular organization of cell membrane.

(7 x 2 = 14 Weightage)

III. Answer any *two* questions. Each question carries 4 weightage.

25. Write an essay on various pathways of complement activation and its regulation.
26. Briefly explain the process of generation of antibody diversity.
27. Give an account of Auto Immune diseases and treatment.
28. What are GPCRs? Explain various molecules and pathways involved in signal transduction.

(2 x 4 = 8 Weightage)
