PG Even Semester Exam, May 2025

Microbiology

2nd Semester

COURSE NO. MBCC- 551

[Cellular Microbiology & Immunology]

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer five questions, selecting one from each unit.

UNIT-I

1. Discuss the role of Cytokines in cell-to-cell signalling and their control in bacterial infection. 14
2. Discuss the role of signalling system in multi cellular organisms. 14

UNIT-II

3. In details discuss the mechanism of active immunity and passive immunity. 7+7=14
4. How production of Antibodies takes place in host's body? Write about Hemolytic disease of newborn. 7+7=14

UNIT-III

5. Describe the structure of immunoglobulin in detail with the help of a diagram. Write about its various physiological and biological properties. 14
6. What is meant by T-cell dependent (TD) Antigen's and T-cell independent (TI) Antigen's. In details write about the vaccines determinants of specificity of antigens. $2\frac{1}{2}+2\frac{1}{2}+9=14$

UNIT-IV

7. Write mechanism, procedure and advantages of Immunofluoro-Secnce test? Also draw a neat diagram representing the test. 14
8. With the help of neat diagram explain the hybridoma technology and its uses. 14

UNIT-V

9. Discuss the role of major histocanpatibility complex in immune responses. 14
10. Write short notes on : 7+7=14
    a. HLA-tissue typing
    b. Immunotoxins

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2025/SEM/EVEN/09/27/MIB-551/313

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