

Roll No.

Total Pages : 2

CMDQ/M-24

5607

VERTEBRATE IMMUNOLOGY

Paper–M–Z–402

Time Allowed : 3 Hours]

[Maximum Marks : 80

Note : Attempt **five** questions in all, selecting **one** question from each Unit. Question No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Explain the following questions : 8×2=16

- | | |
|------------------|---------------------------|
| (i) Haptens. | (ii) Agglutination. |
| (iii) CTLs. | (iv) Natural killer cells |
| (v) Pleiotropy. | (vi) Autoimmunity. |
| (vii) Allotypes. | (viii) ADCC. |

UNIT-I

2. What are Primary and Secondary lymphoid organs. Briefly discuss their structures and functions in cell differentiation and maturation. 16
3. Write short notes on the following :
- | | |
|---|---|
| (a) Structure and function of Antibodies. | 8 |
| (b) Applications of Antigen antibody reactions. | 8 |

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UNIT-II

4. Differentiate between Cellular and Humoral immune system. Explain the different components of Cellular immunity. 16
5. Explain briefly :
- | | |
|--------------------------------|---|
| (a) Type 1 hypersensitivity. | 8 |
| (b) Cytokine related diseases. | 8 |

UNIT-III

6. Differentiate between class I and class II MHC molecules. How it is different from HLA system? 16
7. Write short notes on the following :
- | | |
|---|---|
| (a) Differential expression of Ig gene. | 8 |
| (b) Pathways of complement system. | 8 |

UNIT-IV

8. How Maturation and Activation of B cell takes place? Describe briefly the interactions of TH-B cells. 16
9. Write short notes on the following :
- | | |
|-----------------------|---|
| (a) Types of Vaccine. | 8 |
| (b) T cell receptors. | 8 |

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