

Immunology - III

Time: 1 hour

MM: 25

All Questions are compulsory except where choice is mentioned.

1. Expand the following 0.5 x 5 = 2.5
 - i. CD
 - ii. ADCC
 - iii. TCR
 - iv. CDR
 - v. CH1

2. Define the following 1 x 8 = 8
 - i. Hypervariable region
 - ii. Reaginic antibody
 - iii. Opsonization
 - iv. Plasma Cells
 - v. Microphage
 - vi. **Hinge region**
 - vii. **F(ab')**
 - viii. Idiotype

3. Draw a neat and labeled diagram of the following 2 x 1 = 2
 - i. Basic structure of Immunoglobulin

4. Differentiate between the following (write at least 3 differences) 1.5 x 5 = 7.5
 - i. Allotype and idiotype
 - ii. B – Lymphocytes and T- Lymphocytes
 - iii. CD⁴⁺ Cells and CD⁸⁺ cells
 - iv. Humoral and Cell Mediated Immunity
 - v. Cytotoxic T Cells (CTCs) and Natural Killer (NK) cells

5. Fill the blanks 0.5 x 10 = 5
 - i. and were first to provide proof that antibodies are present in a particular fraction of blood plasma.
 - ii. and elucidated the structure of antibody molecules.
 - iii. Hydrolysis with enzyme give rise to F(ab), while F(ab')₂ is given by hydrolysis of immunoglobulin by
 - iv. region is located between CH1 and CH2 regions and is rich in hydrophilic and amino acids.
 - v. is site of production of lymphocytes and maturation of B cells also in mammals.
 - vi. Cells are responsible for the rapid and heightened secondary immune response.