

Time : 2 Hours]

[Max. Marks : 50

**SECTION-I**

Write any 3 :

1. (a) Explain : B-lymphocyte and mast cell. 7  
(b) Short note on Endotoxins. 7
2. (a) Briefly discuss "Portal of Entry". 7  
(b) Short note on Exotoxins. 7
3. (a) Explain : Immunoglobulin (General structure). 7  
(b) Discuss : Primary and secondary Immune Response. 7
4. (a) Short note on "Types of Antigens". 7  
(b) Explain briefly - "Phagocytosis" 7
5. (a) Discuss : Hybridoma Technique. 7  
(b) Explain : "Sandwich Elisa" in detail. 7
6. (a) Explain : Giving one example of – Agglutination. 7  
(b) Explain : Direct and Indirect Elisa. 7
7. (a) Short note on Type-1 Hypersensitivity. 7  
(b) Explain : Natural Live, Attenuated Vaccines. 7

8. (a) Short note on "Graft Rejection". 7  
(b) Explain with example – "Vaccination". 7

### SECTION - II

9. Write any eight : 8
- (1) Define – Antibody.
  - (2) Define : Invasiveness.
  - (3) Give function (effect) of Hyaluronidase.
  - (4) Give Effectiveness of Coagulase.
  - (5) Name antimicrobial factors present in tears.
  - (6) Name antimicrobial factors present in stomach.
  - (7) Give name of scientist who discovered Interferon.
  - (8) Explain term (Immunologically) - Avidity.
  - (9) Name two components involved in oxygen dependent killing in Phagocytosis.
  - (10) Define : Precipitin.
  - (11) Define : CMI (Explain term).
  - (12) Full form of : RIA, Elisa.
  - (13) Define : mAb.
  - (14) Define – Vaccine.
  - (15) Define – Allergy.
  - (16) Full form : MHC, TCR.