2018

Time: 2 hours

Full Marks: 40

Answer any four questions

All questions carry equal marks

Candidates are required to answer in their own words as far as practicable

## ( MOLECULAR IMMUNOLOGY )

- 1. What is the role of MHC molecule in the recognition of infected cells by NK cells and what is physiology response of this recognition?
- How does the specificity of innate immunity differ from that of adaptive immunity Give example of the ability of innate immune mechanisms to recognize microbes from mammalian cells.

- 3. Write short notes on:
  - (i) AIDS
  - (ii) Haematopoiesis.
- 4. When antigen enters through the skin, in what organs are they concentrated? What are the cell types that play major role in this process of antigen capture?
- 5. What are functionally distinct regions of antibody and T cell receptor molecules? What features of the amino acid sequences in these regions are important for their function?
- 6. What are the major subsets of CD4+ helper T cells, and how do they differ?
- 7. Write short notes on:
  - (i) Hybridoma technology
  - (ii) Generation of antibodies diversity.

8. What type of antigens may induced immune responses that causes hypersensitivity reactions?