

QP Code : AU-6434

(2 ½ Hours)

[Total Marks : 60

Note: Attempt all questions.
All questions carry equal marks.

1. Answer briefly any two of the following- 12
- What are the virulent factors shown by pathogen of UTI?
 - What are the different virulence tests performed to diagnose diphtheria?
 - Write a short note on tuberculosis.
 - Write a short note on lab diagnosis and prophylaxis of whooping cough.
2. Do as directed for any two of the following- 12
- Elaborate upon the life cycle of *E.histolytica* and the clinical features of the disease it causes.
 - Give an account of the serological test used to diagnose enteric fever.
 - Write a note on the prophylaxis of polio.
 - Give an account of bacillary dysentery.
3. Answer any two of the following- 12
- Differentiate between class I and class II MHC molecules.
 - Write a short note on the classical complement pathway.
 - Diagrammatically represent steps involved in the activation and maturation of B cells.
 - Differentiate between the cytosolic and endocytic pathways of antigen processing and presentation.
4. Attempt any two of the following- 12
- With the help of a diagram, show T cell activation and differentiation
 - Briefly discuss the structure of BcR
 - Discuss the role of Th cells in generation of humoral response by B cell.
 - Schematically represent the generation of effector CTLs.
5. A. Define any four of the following- 04
- Diplopia
 - DAEC
 - Three day measles
 - Haemolysin
 - Professional APC
 - Memory cells
 - Naïve B cell
 - $\gamma\delta$ T cell

B. Give the significance of any two of the following-

04

- i. Muscular activity during poliovirus infection.
- ii. Streptolysin 's'
- iii. Mannose binding lectins
- iv. Perforins in CMI

C. Name any four of the following-

04

- i. A medium that is selective for salmonellae.
 - ii. The neurotoxin produced by *Clostridium tetani*.
 - iii. The family to which rubella virus belongs
 - iv. Two tests to diagnose pneumonia
 - v. T cells that express CD8 coreceptor.
 - vi. A ligand for CD28 present on APC.
 - vii. The cytokine released by stromal cells that is involved in B cell maturation in bone marrow.
 - viii. The molecule always associated with TcR, and present on all T cells.
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