

2016

Time : 2 hours

Full Marks : 40

The figures in the right-hand margin indicate marks.

Answer any four questions.

(MICROBIOLOGY AND IMMUNOLOGY)

1. (a) What are the major divisions in Fungi ? Describe, in detail, their important characteristics. 5
- (b) Describe, in detail, nutritional requirements of bacteria and function of major and trace elements in the bacterial cell. 3
- (c) Describe the major ways in which viruses are different from living cells. 2
2. (a) What are the various effector functions performed by antibody ? Explain all, in detail, with neat diagram. 5

- (b) What are non-specific host defences and their mechanism to check entry of Pathogens? 3
- (c) Name the factors that affect the immunogenicity. Describe any one in detail. 2
3. (a) Discuss, in detail, Transduction and its types. 5
- (b) Discuss, with example, interrupted mating experiment. 3
- (c) Write characteristic differences between Gram +ve and Gram -ve bacteria. 2
4. (a) Explain, in detail, with diagram lytic and lysogenic cycle in Viruses. 5
- (b) Write a detailed note on viral vectors. 3
- (c) Describe with a diagram reproduction in Myxomycota. 2
5. (a) Explain with well labelled diagram the processing of exogenous and endogenous antigens. 5

- (b) Draw a neat and well labelled diagram of a primary and secondary lymphoid organ each. 3
- (c) Discuss Wiskott-Aldrich Syndrome. 2
6. (a) What are MHC molecules? Write a detailed note on these molecules with well labelled diagram. 5
- (b) Write a detailed note on SCID. 3
- (c) What are Isotypes, Allotypes and Idiotypes? Show with diagram. 2

