

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM.  
(Deemed to be University)**

**MBBS DEGREE EXAMINATION – February 2020  
SECOND YEAR**

**MICROBIOLOGY – PAPER I**

**Time : Three hours**

**Maximum : 80 marks**

**Answer ALL questions  
Draw diagrams wherever necessary**

**SECTION – A**

**I. Write essay on : (1 x 10 = 10)**

1. Enumerate and elaborate the structure and biological activities of five classes of immunoglobulin.

**II. Write short notes on : (4 x 5 = 20)**

2. Draw the structure of bacterial flagella
3. Coagulase test
4. Write a note on properties, shape and position of spores.
5. Draw and explain the various phases of bacterial growth curve.

**III. Answer briefly : (5 x 2 = 10)**

6. What is southern blotting?
7. Routes of transmission of bacterial infection.
8. What is an agglutination test? Mention types of agglutination test with example.
9. Interleukins.
10. What are autoimmune disease?

**SECTION – B**

**I. Write essay on : (1 x 10 = 10)**

11. State the structural morphological, clinical characteristics and the laboratory diagnosis of mycobacteria.

**II. Write short notes on : (4 x 5 = 20)**

12. Elek's Gel precipitation test.
13. Hanging drop test
14. Write a note on bacteriophage typing.
15. Elaborate on the selective, transport and enrichment media for the diagnosis of *Vibrio cholera*.

**III. Answer briefly : (5 x 2 = 10)**

16. Enumerate the list of toxins produced by *Staphylococcus aureus*.
17. List and four biochemical tests that are used for detecting mycobacteria.
18. What are atypical mycobacteria?
19. Mention the name of the diseases caused by *Rickettsia* and *Orientia*.
20. Mention the general properties of *Chlamydiae*.