

**THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY**

**[MD 1223]**

**DECEMBER 2023  
(OCTOBER 2023 EXAM SESSION)**

**Sub. Code: 2014**

**M.D. DEGREE EXAMINATION  
BRANCH IV – MICROBIOLOGY**

**PAPER I – GENERAL MICROBIOLOGY AND IMMUNOLOGY**

***Q.P. Code: 202014***

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Essay: (2 x 15 = 30)**

1. Enumerate the important structures of the Bacterial Cell. Describe about the structure and functions of Gram Negative Cell Wall. Discuss its clinical significance.
2. Explain the importance of Acquired Immunity. Discuss the clinical application of Artificial Active Immunity and Artificial Passive Immunity in prevention and treatment of Bacterial infections.

**II. Short notes: (10 x 5 = 50)**

1. Chocolate agar.
2. Robert Koch.
3. Transformation.
4. Phase contrast microscope.
5. Pathogenicity Islands in Bacteria.
6. Role of Macrophages in Immunity.
7. Application of Flowcytometry in Microbiology.
8. Acute Phase Reactants.
9. Type II Hypersensitivity.
10. Uses of monoclonal antibodies.

**III. Reasoning Out: (4 x 5 = 20)**

1. In dark field microscope objects are seen brightly against dark background.
2. Anaerobic bacteria grows in Robertson's cooked meat medium.
3. IgA antibodies protects against upper respiratory pathogens.
4. Tissue cross matching is not mandatory for corneal transplantation.

\*\*\*\*\*