

**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 Questions:**

**(2 x 10 = 20)**

1. Describe in detail the virulence factors determining bacterial pathogenicity.
2. Enumerate Antigen antibody reactions and discuss Immunofluorescence in detail.

**II. Short Questions:**

**(8 x 5 = 40)**

1. Electron microscopy.
2. Plasma sterilization.
3. HLA typing.
4. Monoclonal Antibodies.
5. Graft versus host reaction.
6. Ig E.
7. Blotting Techniques.
8. L forms.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Foetal loss in Rh incompatibility increases with repeated pregnancy.
2. Hyperacute rejection occurs usually within the first few hours of transplantation.
3. Clinically proven case of syphilis but qualitative VDRL nonreactive.
4. Sharp instruments and oil are not sterilized in autoclave.

**IV. Very Short Answers:**

**(10 x 2 = 20)**

1. Methods of testing disinfectant.
2. Redox potential.
3. Transport media.
4. Sterilisation controls in autoclave.
5. Psychrophiles.
6. Hapten.
7. Waldenstrom's macroglobulinemia.
8. Nephelometry.
9. Name blood transfusion related infections.
10. Allograft.

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