

[LG 117]

APRIL 2015

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

Answer ALL questions

I. Essay: (2 x 10 = 20)

1. Describe all the staining methods used in the identification of bacteria.
2. Define immune modulators and discuss their therapeutic applications.

II. Short Questions: (8 x 5 = 40)

1. Polarisation microscopy.
2. Flow cytometry.
3. Transposons.
4. Radioimmunoassay.
5. Genetic mapping.
6. Methods of detection of biofilms.
7. Quality control.
8. Biosafety in the laboratory.

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

1. ABO hemolytic disease can occur even in first child of 'O' group mothers.
2. Hyperacute rejection occurs usually within the first few hours of transplantation.
3. 'O' antigen detection is done only for Salmonella typhi not for Salmonella paratyphi A and B in widal test.
4. Ultrasonic devices are not reliable for regular use in disinfection or sterilisation.

IV. Very Short Answers: (10 x 2 = 20)

1. Welch method of staining.
2. Xenograft.
3. Chimeric antibodies.
4. Tyndallization.
5. Oxidation-Fermentation test.
6. E test.
7. Cell wall inhibitors.
8. ELISPOT Assay.
9. Rh incompatibility.
10. Western blot.
