

(LC 117)

APRIL 2013

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: (2X10=20)

1. Describe the Genotypic variations in Bacteria with special reference to Drug resistance.
2. Describe the mechanisms of Innate immunity with special reference to soluble molecules and cell types involved in innate immunity.

II. Short Questions: (8X5=40)

1. Koch's postulates and Koch's phenomenon
2. Aldehydes used in Sterilisation
3. Stock culture techniques
4. Dark field microscopy - principle and uses
5. Immunofluorescence - types and uses
6. Alternative pathway of complement
7. Null cells and Natural killer cells
8. Immunology of Systemic lupus erythematosus

III. Reasoning Out: (4X5=20)

1. Loss of the capsule render the bacterium avirulent.
2. In Kliglers iron agar, blackening of the medium occurs when some bacteria are inoculated.
3. In Brucella agglutination test, several dilutions of the serum tested in hypertonic saline.
4. When an Rh negative women carries an Rh positive fetus, there is a chance for Hemolytic disease of the new born.

IV. Very Short Answers: (10X2=20)

1. Antony von Leeuwenhoek
2. Pasteurisation
3. Paradoxical carriers
4. Quellung reaction
5. Indole Test
6. Idiotoxes
7. Passive Agglutination
8. Mediators of Anaphylaxis
9. Peripheral lymphoid organs
10. Transport media
