

D 31424

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. (MICROBIOLOGY) DEGREE EXAMINATION
JANUARY 2004**

Paper **VII—MEDICAL MICROBIOLOGY**

Time : Three Hours

Maximum : 80 Marks

Section A

*Answer **all** questions.
Each question carries 2 marks.*

Write very briefly on :

- | | |
|---------------------|----------------------|
| 1. Endemic disease. | 2. Enterotoxins. |
| 3. Q-fever. | 4. Trachoma. |
| 5. Sporozoite. | 6. Campylobacter. |
| 7. Serum hepatitis. | 8. Septicaemia. |
| 9. Indole test. | 10. Mycotoxins. |
| 11. Giardiasis. | 12. Beta lactamase. |
| 13. Gonococcus. | 14. Toxoid. |
| 15. Sporozoa. | 16. Legionella. |
| 17. Encephalitis. | 18. Ebola. |
| 19. Mycoplasma. | 20. Colicine typing. |

(20 x 2 = 40 marks)

Section B

*Answer any **five** questions.
Each question carries 8 marks.*

Write note on :

1. Etiology and pathogenesis of Anthrax.
2. Epidemiology of Leptospirosis.
3. Role of arthropods in the transmission of typhus fevers.
4. Life-cycle of malarial parasites.
5. Mechanism of action of major classes of antimicrobials.
6. Antibiotic susceptibility test by disc diffusion method.
7. Biochemical test in the identification of bacteria.

(5 x 8 = 40 marks)

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THIRD SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2004

Microbiology

Paper VIII—MOLECULAR BIOLOGY AND GENETIC ENGINEERING

Time : Three Hours

Maximum : 80 Marks

Wherever needed answers must be supported by structural illustrations and diagrams.

Section A

*Answer **all** questions.*

Each question carries 2 marks.

Write very briefly on :

- | | |
|-----------------------------------|--------------------------------------|
| 1. F' Plasmids. | 2. Bidirectional replication of DNA. |
| 3. Operon model. | 4. Carcinogens. |
| 5. RNA Splicing. | 6. Codon. |
| 7. E. Coil phage T ₇ . | 8. Transfer of Plasmid DNA. |
| 9. Agrobacterium Plasmid Ti. | 10. Pairing DNA molecules. |
| 11. Mismatched Base Pairs. | 12. Vectors in DNA Technology. |
| 13. Oncogenes in cancer cells. | 14. Antibiotic resistance. |
| 15. Geometry of DNA Replication. | 16. Recombination Repair of DNA. |
| 17. Linkage Mapping. | 18. Restriction Mapping. |
| 19. Western blotting. | 20. DNA Sequencing. |

(20 x 2 = 40 Marks)

Section B

*Answer any **five** questions.*

Each question carries 8 marks.

Write notes on :

1. Enzymology of DNA replication.
2. Metabolic regulation of Transcription in Bacteria.
3. Transformation in Yeast.
4. Expression of cloned Genes.
5. Bacterial Transposons.
6. DNA transfer by Transduction.
7. Termination of linear DNA molecules.

(5 x 8 = 40 marks)