

**D 52018**

**Name**.....

**Reg. No** .....

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION  
JANUARY 2009**

Microbiology (Main)

**MBL2T – GENERAL MICROBIOLOGY**

(2005 admissions)

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Answer **all** questions in 2 or 3 sentences.*

- |                                    |                               |
|------------------------------------|-------------------------------|
| 1. <b>Oligodynamic</b> action.     | 2. Flagella.                  |
| 3. Selective media.                | 4. <b>Rideal-Walker</b> test. |
| 5. Seitz- filter.                  | 6. <b>Photoheterotrophs</b> . |
| 7. Stab culture.                   | 8. <b>Pili</b> .              |
| 9. <b>Acessory</b> growth factors. | 10. <b>Microaerophiles</b> .  |
| 11. Penicillin.                    | 12. Active transport.         |
| 13. <b>Endospore</b> .             | 14. <b>Plasmids</b> .         |
| 15. Point mutation.                | 16. <b>Volutin</b> granules.  |
| 17. Anaerobic jar.                 | 18. <b>Iodophores</b> .       |
| 19. Binary fission.                | 20. <b>Lyophilisation</b> .   |

(20 x 2 = 40 marks)

**Section B**

*Discuss any **five** of the following.*

1. Chemical agents used for microbial control.
2. Preservation of cultures.
3. Types of mutations.
4. Cultivation of viruses.
5. **Sporulation** in Bacteria.
6. Factors affecting microbial growth.
7. Molecular methods used in Microbial taxonomy.

(5 x 8 = 40 marks)

**D 52019**

**Name.....**

**Reg. No.....**

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION  
JANUARY 2009**

Microbiology

**MB L3T – ENVIRONMENTAL AND SANITATION MICROBIOLOGY**

(2005 admissions)

Time : Three Hours

Maximum : 80 Marks

**Section A**

*Write about I answer **all** the questions in 2 or 3 sentences.*

- |                                     |                        |
|-------------------------------------|------------------------|
| 1. Competitive exclusion principle. | 2. Cometabolism.       |
| 3. VAM.                             | 4. Rhizosphere.        |
| 5. Biological weapons.              | 6. Air Ozonisation.    |
| 7. Air sanitation in metro tunnels. | 8. Sulphate reduction. |
| 9. Biosensors.                      | 10. BOD.               |
| 11. Faecal streptococci.            | 12. Xenobiotics.       |
| 13. Microbial biofilm formation.    | 14. Vermicomposting.   |
| 15. Tarball pollution.              | 16. Imhoff Tank.       |
| 17. Rapid sand filter.              | 18. Oxidation pond.    |
| 19. Greenhouse gases.               | 20. Aeroallergens.     |

(20 x 2 = 40 marks)

**Section B**

*Write notes on / discuss any **five** of the following.*

1. Factors affecting the type and extent of air microflora.
2. Biodegradation of petroleum wastes.
3. Discuss different methods of treatment of industrial effluents.
4. Illustrate the membrane filter technique for air sampling.
5. Enumerate the factors affecting composting.
6. Phosphorus cycle.
7. Quantitation techniques for water microflora.

(5 x 8 = 40 marks)