

D 28056

Name.....

Reg. No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2007

Microbiology

M.B.1.2 T—GENERAL MICROBIOLOGY

(2005 admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

*Write about I answer **all** the questions, each in two **or** three sentences.*

1. Stationary phase of bacterial growth.
2. Mc Intosh Fildes's jar.
3. **Hyperthermophiles.**
4. Differential media.
5. Brown's opacity tubes.
6. **Cryopreservation** of bacterial cultures.
7. **Auxotrophs.**
8. **Halophilic** bacteria.
9. Primary cell cultures.
10. Pock counting.
11. **Fimbriae.**
12. **Porins.**
13. **Peptidoglycan.**
14. **Mesosomes.**
15. **Volutin** granules.
16. Bacterial chromosome.
17. **Transposons.**
18. **Plasmids.**
19. Bacterial spore.
20. Locomotion in bacteria.

(20 x 2 = 40 marks)

Section B

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

1. Autoclaving.
2. Testing of disinfectants.
3. Antiseptics.
4. Mechanism of action of penicillin.
5. Replica plating.
6. Numerical taxonomy.
7. **Ribotyping.**

(5 x 8 = 40 marks)

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Microbiology

MBI-3T—ENVIRONMENTAL AND SANITATION MICROBIOLOGY

(2005 admissions)

Maximum : 80 Marks

Time : Three Hours

Section A

*Write **about / answer all** the questions each in 2 or 3 sentence&*

- | | |
|---------------------------|------------------------|
| 1. Commensalism. | 2. Ris ratio. |
| 3. Cellulose degradation. | 4. Mycorrhiza. |
| 5. Leghaemoglobin. | 6. Nitrification. |
| 7. Aerosols. | 8. Air sanitation. |
| 9. Biological weapons. | 10. Greenhouse effect. |
| 11. Indicator organisms. | 12. Eutrophication. |
| 13. MPN tests. | 14. EMB agas. |
| 15. Biosensors. | 16. BOD. |
| 17. Xenobiotics. | 18. Marine fauling. |
| 19. Oil pollution. | 20. Biodegradation. |

(20 x 2 = 40 marks)

Section B

*Write notes **on / discuss** any **five** of the following.
Each question carries 8 marks.*

1. Factors affecting soil microbial populations.
2. Mechanisms of nitrogen fixation.
3. Enumeration of bacteria in air.
4. Sources of air pollution.
5. Bacteriological analysis of water.
6. Methods of sewage treatment.
7. Biodegradation of petroleum wastes.

(5 x 8 = 40 marks)