

**SECOND SEMESTER M.Sc. (MICROBIOLOGY) DEGREE
EXAMINATION, JULY 2009**

Microbiology

MB 2.3 T – INDUSTRIAL MICROBIOLOGY

(2005 Admissions)

Time : Three Hours

Maximum : 80 Marks

Section A

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

1. Chemostat.
2. Cell harvesting.
3. Fed batch systems.
4. Heat transfer in fermenters.
5. Fluidized bed fermenter.
6. Hops.
7. Lactic acid bacteria.
8. Deep jet fermenter.
9. Single cell protein.
10. Aseptic fermentation.
11. Salting out.
12. Antifoam agents.
13. Brewer's yeast.
14. Rotary vacuum filtration.
15. Crowded plate technique.
16. Fortified wines.
17. Vitamin **B₁₂** production.
18. Fungal amylases.
19. Adjuncts.
20. Still tank reactors.

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Turn over

Section B

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

1. Strain improvement.
2. Pneumatic fermenters.
3. Bioreactor design.
4. Acetone-butanol fermentation.
5. Importance of fermentations in ayurvedic medicines.
6. Beer production.
7. Downstream processing.

(5 x 8 = 40 marks)