

**D 12978**

**(Pages : 2)**

**Name.....**

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

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, FEBRUARY 2006**

**Microbiology**

**Paper IX—INDUSTRIAL MICROBIOTECHNOLOGY  
SPECIFIC CLASSICAL BIOPROCESSES**

Time : Three Hours

Maximum : 80 Marks

**Section A**

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

1. **Film based** bioreactors.
2. UASB reactor.
3. Polyhydroxybutyrate.
4. Applications of Proteases.
5. Catabolite plasmids.
6. Fluidized bed reactors.
7. Plasmid assisted molecular breeding.
8. **Xanthemgum** production.
9. Aerated logoon.
10. Microbiology of composting.
11. Enrichment culture.
12. Total organic carbon.
13. Microbial emulsifiers.
14. Fermentative production of Vitamin B<sub>12</sub>.
15. Solid state fermentation.
16. Importance of steroid transformation.
17. Imhoff tank.
18. Lactic acid starter culture.
19. Solid waste management.
20. Importance of fermentations in ayurvedic medicines.

(20 x 2 = 40 marks)

Turn over

**Section B**

*Answer any five questions.*

1. **Ethanol fermentation from molasses.**
2. **Microbial enzyme production.**
3. **Fermentative production of aminoacids.**
4. **Aerobic waste water treatment methods.**
5. **Fermentative production of penicillin.**
6. **Biodegradation and its applications.**
7. **Methods of composting.**

(5 x 8 = 40)