D 26178 **(Pages : 2)** **Name.....**

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION
SEPTEMBER/OCTOBER 2006

Microbiology

Paper IX—INDUSTRIAL MICROBIOTECHNOLOGY—SPECIFIC CLASSICAL BIOPROCESSES

T me : Three Hours Maximum : 80 Marks

Section A

Answer **all** *questions in* 2 **or** 3 *sentences.*
Each question carries 2 *marks.*

1. Semi-synthetic penicillins.
2. Beer manufacturing.
3. Baker's yeast.
4. Fermentative production of citric acid production.
5. Xanthum gum production.
6. Production of lactic acid from whey.
7. Applications of amylase.
8. *Trichoderma viride*.
9. Anaerobic digesters.
10. Accelerated composting.
11. Imhoff tank.
12. Biodegradation and bioremediation.
13. Microbial emulsifiers.
14. Biological oxygen demand.
15. Treatment of petroleum waste.
16. Break point in chlorination.
17. Upflow anaerobic sludge blanket reactor.
18. Lactic acid bacteria.
19. Antiviral agents.
20. Polyhydroxy butyrate.

(20 x 2 = 40 marks)

Turn over

Section B

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

1. Fermentative production of ethanol.
2. Acetone-Butanol fermentation.
3. Co-metabolism and its applications.
4. Biotransformation of steroids.
5. Microbial treatment of dairy waste.
6. Waste-water treatment with trickling filter system.
7. Natural and facilitated biodegradation of woody matter.

(5 x 8 = 40 marks)