

C 7025

Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, AUGUST 2005

Microbiology

Paper V—SANITATION MICROBIOLOGY

Time : Three Hours

Maximum : 80 Marks

I. Answer *all* the following questions :

- 1** What is the mode of action of ionizing radiations ?
- 2** Name *three* gaseous disinfectants.
- 3** What are siderophores ?
- 4** What is the mode of action of chloroheximide ?
- 5** How is phenol coefficient of a disinfectant determined ?
- 6** What are droplet nuclei ?
- 7** How is room sanitation in hospitals accomplished ?
- 8** What are the precautions to be taken against microbial warfare ?
- 9** What are HEPA filters ?
- 10** What are indicator organisms ?
- 11** Define eutrophication.
- 12** What is the role of alum in water purification ?
- 13** Explain the mode of action of chlorine.
- 14** What is mode of action of aflatoxins ?
- 15** Explain the presumptive test used for detection of *E. Coli*.
- 16** What is meant by 'HACCP' ?
- 17** What are the selective media used for isolation of Salmonella in food ?
- 18** Indicate the spoilage indices of food.
- 19** Indicate the methods used for detection of air microflora.
- 20** Explain the spoilage of canned food.

(20 x 2 = 40 marks)

II. Write notes on *any five* :

- 1** Physical agents used for control of microbes.
- 2** Factors affecting the extent and type of air microflora.
- 3** Methods of control of air microflora.
- 4** Importance of water quality in industries.
- 5** Purification of drinking water.
- 6** Botulism intoxication.
- 7** Microbial spoilage of meat.

(5 x 8 = 40 marks)

D 31426

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Reg. No.

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, JANUARY 2004

Microbiology

Paper IX—INDUSTRIAL MICRO BIOTECHNOLOGY SPECIFIC CLASSICAL
BIO-PROCESSES

Time : Three Hours

Maximum : 80 Marks

Section A

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

1. Strain improvement.
2. Mode of action of anthracycline.
3. Substrates for vitamin B12 production.
4. Optimum conditions for ethanol production.
5. Microbes involved in steroid transformation.
6. pH control during lactic acid fermentation.
7. Applications of Rhizobial biomass.
8. Microbial emulsifiers.
9. Fermentation of ayurvedic medicine.
10. Classification of sewage.
11. Bioremediation.
12. BOD.
13. Mode of action of chlorine.
14. Common contaminants in food industry.
15. Biofilm.
16. Activated sludge.
17. Biodegradation of wood.
18. Thermophilic microbes.
19. Anaerobic digestion of waste.
20. Molasses.

(20 x 2 = 40 marks)

Section B

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

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|--|--------------------------------|
| 1. Industrial production of ethanol. | 2. Production of bakers yeast. |
| 3. Lactic acid fermentation from whey. | 4. Co-metabolism. |
| 5. Treatment of petroleum wastes. | 6. Trickling filters. |
| 7. Biogas from wastes. | |

(5 x 8 = 40 marks)