

10841

Name:

Reg.No.

FIRST SEMESTER M.Sc. DEGREE EXAMINATION (CUCSS), DECEMBER 2010
(2010 ADMISSION)

MICROBIOLOGY (MAIN)

MBIC04 - INDUSTRIAL MICROBIOLOGY

Time: Three hours

Maximum : 36 Weightage

Section - A

Write Briefly on the following. Weightage for each answer is 1.

1. Crowded plate technique
2. **Protoplast** fusion
3. Continuous fermentation
4. Fed-batch fermentation
5. Cooling-coils in fermentors
6. **Sparger**
7. Molasses
8. **Biphasic** separation
9. *Clostridium acetobutylicum*
10. **Penicillium chrysogenum**
11. Single cell protein
12. **Lyophilization**
13. Salting out
14. Disc stack centrifuge

(Total Weightage = 14)

Section - B

Write notes on:- Weightage for each answer is 2.

15. Strain improvement techniques
16. Sterilization of **bioreactors**
17. **Antifoaming** techniques
18. Citric acid production
19. Production of MSG
20. Manufacture of beer
21. Importance of fermentation in ayurvedic medicines

—————(Total Weightage = 14)

Section - C

Answer the following. Weightage for each answer is 4.

22. Describe the different types of **bioreactors**.
23. Describe the Industrial fermentation of wine.

—————(Total Weightage = 8)

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FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Microbiology

MB 1C 04—INDUSTRIAL MICROBIOLOGY

(As per 2010 Admission Syllabus)

Time : Three Hours

Maximum : 36 Weightage

Section A

*Write briefly on the following.
Each question carries 1 weightage.*

- | | |
|---|---|
| 1. Primary screening. | 2. Transformation. |
| 3. Turbidostat. | 4. Solid substrate fermentation. |
| 5. Baffles. | 6. Corn-steep liquor. |
| 7. Filter press. | 8. Baker's yeast. |
| 9. <i>Streptomyces griseus</i> . | 10. Continuous extractive fermentation. |
| 11. Food yeast. | 12. Crystallization. |
| 13. Vitamin B ₁₂ production. | 14. Dialysis. |

(14 x 1 = 14 weightage)

Section B

*Answer the following.
Each question carries 2 weightage.*

Write notes on :

- | | |
|------------------------------------|--|
| 15. Bioprocess media formulations. | 16. Sterilization systems in fermentation. |
| 17. Bio-assays. | 18. Acetone-butanol fermentation. |
| 19. Lactic acid production. | 20. Amylase production by fungi. |
| 21. Penicillin production. | |

(7 x 2 = 14 weightage)

Section C

*Answer the following.
Each question carries 4 weightage.*

22. Discuss the various techniques applied in downstream processing.
23. Discuss the industrial production of beer.

(2 x 4 = 8 weightage)