

**D 13242**

**(Pages : 2)**

**Name.....**

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

**FIRST SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2016**

**(CUCSS)**

**Microbiology**

**MB 1C 04—INDUSTRIAL MICROBIOLOGY**

Time : Three Hours

Maximum : 36 Weightage

**Section A**

*Write briefly on the following.  
Weightage for each answer is 1.*

- |                               |                           |
|-------------------------------|---------------------------|
| 1. Mass transfer coefficient. | 8. B.O.D.                 |
| 2. Enrichment culture.        | 9. Fed batch culture.     |
| 3. Protoplast fusion.         | 10. Impeller.             |
| 4. Salting out.               | 11. Algae as SCP.         |
| 5. Probiotics.                | 12. <i>C glutamicum</i> . |
| 6. Bottom Yeast.              | 13. Idiophase.            |
| 7. Monosodium glutamate.      | 14. Synchronous growth.   |

(14 x 1 = 14 weightage)

**Section B**

*Write notes on any seven.  
Weightage for each answer is 2.*

15. Fermentative production of **pencillin**.
16. Strain improvement strategies.
17. Production of lactic acid from whey.
18. Explain the microbial growth kinetics in batch culture.
19. Discuss yeast as industrially important organism.
20. Statistical methods employed for media formulation.
21. Production of beer.
22. How will you isolate and screen lipase producers.
23. **SCP** as feed.
24. Explain wine preparation.

(7 x 2 = 14 weightage)

**Turn over**

## Section C

*Answer any two of the following.*

*Weightage for each answer is 4.*

25. Describe downstream processing employed for separation and purification of industrially important product with suitable example.
26. Discuss importance and production of Single Cell Protein.
27. Explain different detection and assay methods for fermentation products.
28. Discuss instrumentation in bioreactors.

(2 x 4 = 8 weightage)