

B.Sc. Examination – March 2017
Semester - VI

Paper: MI-605 Advance Industrial Biotechnology
Time: 2:30 Hours

Paper Code: 4647
Total Marks: 70

Instructions: (a) Figures to the right indicate total marks of respective question.
(b) Draw neat, clean and labeled diagram wherever necessary.

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| 1 | (a) Compare and contrast: Batch vs continuous fermentation process. | 07 |
| | (b) Explain any two methods of product recovery. | 07 |
| | OR | |
| 1 | (a) Explain industrial production of bacterial amylase. | 07 |
| | (b) Explain industrial production of penicillin. | 07 |
| 2 | (a) Write on: Steroid transformation. | 07 |
| | (b) Write on: Applications of biocatalysts. | 07 |
| | OR | |
| 2 | (a) Discuss: Scale up of fermentation process. | 07 |
| | (b) Write on: CSTF with its merits and demerits. | 07 |
| 3 | (a) Discuss: Acetone production. | 07 |
| | (b) Discuss: Recovery and purification of riboflavin. | 07 |
| | OR | |
| 3 | (a) What is SCP? Explain its production. | 07 |
| | (b) Write on: Microbiological assay of penicillin. | 07 |
| 4 | (a) Write on: Antifoaming agents. | 07 |
| | (b) Give an overview on various fermentation processes. | 07 |
| | OR | |
| 4 | (a) What is wine? Explain its types. | 07 |
| | (b) Explain industrial production of acetic acid. | 07 |
| | OR | |
| 5 | (a) Write on: Recombinant insulin. | 07 |
| | (b) Write on: Edible mushrooms. | 07 |
| | OR | |
| 5 | (a) Why DO level is critical for submerged fermentation processes? | 07 |
| | (b) Write on: Temperature control in fermentation processes. | 07 |
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