No. of Printed Pages : 03 **Roll No. .....**

AA-222

M. Tech. EXAMINATION, May 2018

(First Semester)

(B. Scheme) (Re-appear Only)

(BT)

BT503B

INDUSTRIAL BIOTECHNOLOGY-II

Time : 3 *Hours*] [*Maximum Marks :* 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt any *Five* questions. All questions carry equal marks.

1. (a) Discuss a strategy to isolate microorganism from dairy effluents. Explain to characterize and maintenance of such isolates. **10**

(b) Comment on design of a culture medium with phosphorus sources into it. **5**

2. (a) Derive an equation for Michelis-Menton reaction and explain the significance of rate constant. **10**

(b) How does yeast play a role in beer making ? Justify with examples. **5**

3. (a) Elaborate process technology for industrial production of lipase and its purification. **7½**

(b) Discuss the strategies for selection of mutants. **7½**

4. Explain the following : **5×3=15**

(a) SPC

(b) Application of citric acid

(c) Wine.

5. (a) Explain briefly about purification of tetracyclin from culture medium. **7½**

(b) Comment on a recombinant protein produced in procaryotic system. Explain with example. **7½**

6. Discuss microbial fuel cell in detail with neat diagram. **15**

7. (a) How conventional protein source can be produced industrially ? **7½**

(b) How can drugs be developed by using microbial genomic technology ? **7½**

8. Write short notes on the following :

(a) Bioremediation

(b) Fermentation for Penicillin production

(c) Promoter and enhancer. **5×3=15**