No. of Printed Pages: 03 Roll No.

G124

B. Tech. EXAMINATION, 2020

(Seventh Semester)

(B Scheme) (Main & Re-appear)

(BT)

BT407B

MICROBIAL BIOTECHNOLOGY

Time : 2½ *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 *Four* questions in all. All questions carry equal marks.

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- Give a detailed account of extremozymes and modular enzymes, giving suitable examples of each type.
- **2.** Enlist and explain the important applications of enzymes in various sectors.
- **3.** Write the basic principles, methods and applications of protein and enzyme engineering.
- 4. What do you understand by complementing and engineering of metabolic pathways?

 Discuss.
- **5.** Discuss the production of single cell protein from carbohydrate and carbon dioxide.
- **6.** Explain the metabolic engineering pathway for production of polyhydroxy alkanoates.

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- **7.** Elaborate the process of transformation of steroids, sorbitol and antibiotics and discuss their advantages.
- **8.** Describe the important techniques used for analysis of microbial genomes and their use for designing drugs.