



AJEENKYA

D Y PATIL UNIVERSITY

End Term Examination (December 2019)

School: School of Engineering

Program: B.Tech Biotechnology (Food)

Course: Fermentation Technology

Course Code: BTE403

Semester: VII

Max Marks: 40

Duration (mins) : 90

Answer any **FOUR** questions.

Q 1. Write Short notes. (Any FIVE)

(Each question carries 2 marks)

[10]

- Primary and secondary compounds of metabolism
- Criteria for choice of organisms for fermentation process
- Identified and unidentified medium
- Role of chelators in fermentation medium
- Basic elements of fermenter control systems
- Oxygen transfer rate

Q 2. Answer any TWO questions.

(Each question carries 5 marks)

[10]

- Explain bacterial growth curve with all the stages and an appropriate diagram.
- What are the different preservation techniques?
- Write a note on development of yeast inoculum in brewing industry.

Q.3 Answer any TWO questions.

(Each question carries 5 marks)

[10]

- a. What is the role of recombinant DNA technology in fermentation?
- b. What are different nitrogen sources used in fermentation media? Enlist the criteria for choice of appropriate nitrogen source.
- c. Enlist methods of flow measurement employed for gaseous and liquid flow in fermentation.

Q.4 What is feedback inhibition and feedback repression? What are different types of feedback control? Explain with diagrams. **[10]**

Q.5 Why is sterilization necessary in fermentation? Explain and compare batch and continuous sterilization processes. What is del factor? How is it calculated? **[10]**
