



AJEENKYA
D Y PATIL UNIVERSITY

End Term Examinations (April 2019)

School : School of Engineering

Program: M.Tech Bioengineering

Course: Bioprocess Technology

Course Code: BEN519

Semester: II

Total Marks : 50

Duration (min) : 120

Answer any 5 questions.

Each question carries 10 Marks.

1. What is subtilisin? What are alkaline proteases? Describe their production method and utility.
2. How can amylase help in glucose production in industry? Explain. Describe the microbial route of Vitamin B12 production. Why can't it be produced by chemical method?
3. What is polyketide antibiotic? Discuss the production method and utility of erythromycin.
4. What are the methods to break open a cell to get intracellular products? Discuss.
5. Write a note on adsorption in downstream processing.
6. How can centrifugation help in industrial fermentation? Explain.
7. Write a note on media preparation for fermentation industry.
8. Describe the process of batch and continuous sterilization.
9. What is volumetric gas transfer rate? How can it be measured? What is critical oxygen concentration? Discuss.