



AJEENKYA

D Y PATIL UNIVERSITY

End Term Examinations (April 2019)

School : School of Engineering

Program: B.Tech Biotechnology

Course: Elements of Molecular Biology

Course Code: BTE209

Semester: IV

Total Marks : 50

Duration (min) : 120

Answer any 5 questions.

Each question carries 10 Marks.

1. Explain with a diagram the function of a transcription bubble. What is Rho-independent transcription termination? Elucidate with a diagram.
2. Describe a lac operon with its detail of gene expression.
3. Discuss the working of a tryptophan operon.
4. What is the role of lariat formation in splicing? Explain with a diagram.
5. What is a 5' cap of mRNA? How it is made? Explain with a diagram.
6. How is 3' Poly A tail made in mRNA? Describe with a diagram.
7. Draw and label a tRNA. Write a note on its role as adaptor.
8. Write a note on Ribosome and its role in protein synthesis.
9. What is Wobble hypothesis? Explain the rules with diagram.