

Assignment for B.Sc Botany Hons 4th Semester,CC-8,C8T Molecular Biology(Unit-6)

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1.Compare the structures of prokaryotic and eukaryotic ribosomes?
where do the peptidyl transferase activity lies in the ribosome?4+1=5

2.Compare the mature mRNAs of prokaryotes and eukaryotes ready to
be translated. 3

3.Describe the charging of tRNA with figure. How a synthetase
recognizes a particular amino acid and it's corresponding tRNA? 3+2=5

4.Where do the amino acids get attached in the tRNA? How many amino
acyl tRNA synthetases are there? What are class I and class II aminoacyl
tRNA synthetases?

1+1+1=3

5.Give a brief account of initiation with figure and mentioning the roles
of protein factors in prokaryotes.5

6.Point out the differences between prokaryotic and eukaryotic
initiation.3

7.Give a flow chart(with diagram) of elongation. Mention one
eukaryotic elongation factor.

8.Write down the release factors of prokaryotic termination and the
codes that they recognize. What is the role of RF3?what are the
functions of eRF1 and eRF2 in eukaryotic termination?2+1+2=5

9. Discuss the two mechanisms of fidelity of translation. $2.5 \times 2 = 5$

10. Give two inhibitors and how they inhibit protein synthesis (mechanism of action) in prokaryotes and eukaryotes. $2.5 \times 2 = 5$