

B. Sc. Semester-III (Honours) Examinations-2020
Subject- Microbiology
Paper- CC7 (Molecular Biology)

Time- 2 hrs.

Full Marks: 40

Answer any eight questions from the following:

5 x 8 = 40

1. What is T_m value of DNA? Write a short note on Cot curve.
2. How prokaryotic and eukaryotic genome organization differs? What is linking number of DNA?
3. Describe D-loop replication with suitable diagram.
4. What is replisome? Name the enzymes involved in initiation of prokaryotic replication and mention their activities.
5. How nucleotide excision repair differs from base excision repair? What is the importance of mismatch repair?
6. What are exons and introns? Describe spliceosome mediated splicing process
7. What is meant by negatively controlled inducible operon? How attenuation occurs in tryptophan operon?
8. Describe the initiation events of protein synthesis in prokaryotes.
9. Write a short note on RNA interference.
10. How transcription event differs from replication? How rho-independent and rho-dependent termination of transcription differs from each other?