

B.Sc. Semester-V Examinations-2020
Subject- Biochemistry

Paper- CC-11

(Chromosome Organization, DNA replication, Mutation and Repair) (Theory)

Answer in your own words as far as practicable

F.M:40

Time- 2 hrs.

Answer any eight questions from the following

5 x 8 = 40

1. Differentiate between nucleotide and nucleoside. Draw phosphodiester bond.
2. Define promutagen. Write briefly on any two methods of chemical mutagenesis.
3. Describe the method of DNA replication in Prokaryot.
4. Discuss the process of replicative transposition of Tn3 transposon elements found in bacteria.
5. Define frameshift mutation. Write down Ames test with suitable diagram.
6. How does UV light cause damage to DNA? Compare base excision repair and nucleotide excision repair.
7. Write a note on IS elements.
8. Write structure of the nucleosome with suitable diagram.
9. Differentiate between transition and transversion with suitable examples. Write a note on SOS mechanism of DNA repair.
10. What is a nucleic acid inhibitor? Mention the mode of action of any one nucleic acid inhibitor.