

- b) Write a short note on the classification of bacterial plasmids (7)
- Q-5 Attempt all questions (14)**
- a) Compare generalized transduction and specialized transduction (7)
- b) What is the purpose of the Ames test? How are his⁻ bacteria used in this test? (7)
- Q-6 Attempt all questions (14)**
- a) How do base analogs lead to mutations? Explain with the help of an example. (7)
- b) What do you understand by Suppressor mutation? Briefly describe how intragenic suppressors may reverse the effects of mutations. (7)
- Q-7 Attempt all questions (14)**
- a) Compare a typical insertion sequence with a typical composite transposon in bacteria with the help of a labeled diagram. (7)
- b) What general characteristics are found in transposable elements? Explain the difference between replicative and nonreplicative transposition. (7)
- Q-8 Attempt all questions (14)**
- a) Explain how Ac and Ds elements produce variegated corn kernels. (7)
- b) Briefly explain hybrid dysgenesis. How P elements lead to hybrid dysgenesis? (7)

