

Unique Paper Code : 42237903
Name of the Paper: DSE – Animal Biotechnology
Name of the Course: B.Sc. (Prog.) Life Sciences
Examination, 2020-CBCS
Semester : V
Duration : 3 hours
Maximum Marks : 75 Marks

Instructions for Candidates

Write your Roll No., Name of the paper, Course Semester, and Date of examination on the first page of answer sheet.

Attempt **ANY FOUR** questions. **All questions carry equal marks.**

Illustrate your answers with appropriate diagrams wherever necessary.

1. Describe how chimeric DNA is prepared and what different tools are required for the purpose. (18.75)
2. What are the important features required in a cloning vector? Explain one example each of the vectors used in prokaryotic cell, plant cell and animal cell. (18.75)
3. Describe how biochips are used for studying the gene expression? Add a note on its applications. (18.75)
4. Describe the Chain termination method of DNA sequencing using the sequence 3' - ATGGCTACGTACCTAGATCCT -5' with all the steps involved in the process. Also enumerate the applications of the DNA sequencing technique. (18.75)
5. Discuss in detail about different strategies of production of Insect resistant plants. (18.75)
6. How does biotechnology help in the molecular diagnosis of diseases? Elaborate any one diagnostic test that has been developed for Sickle Cell Anaemia. (18.75)