

Code No. 7131

FACULTY OF SCIENCE  
B.Sc. IV-Semester (CBCS) Examination, May / June 2018

Subject : Genetics

Paper - IV : Microbiology Genetics and Genetic Engineering

Time : 3 Hours

Max. Marks: 80

SECTION – A (5 x 4 = 20 Marks)  
(Short Answer Type)

Note : Answer any FIVE of the following questions.

- 1 Bacterial counting
- 2 Interrupted mating
- 3 Co-transduction
- 4 Specialized transduction
- 5 Ligases
- 6 Western blotting
- 7 Interferon
- 8 Golden rice

SECTION – B (4 x 15 = 60 Marks)  
(Essay Answer Type)

Note: Answer all questions from the following.

- 9 (a) Explain gene mapping by conjugation.  
OR  
(b) Explain gene mapping by transformation.
- 10 (a) Discuss the structure and classification of bacteriophages.  
OR  
(b) Give an account on generalized transduction.
- 11 (a) What are c-DNA libraries? Discuss the strategies for construction of c-DNA libraries.  
OR  
(b) Describe the screening methods for detection of cloned genes.
- 12 (a) Write an account on DNA based vaccines.  
OR  
(b) Explain with examples genetic engineering of microorganism for bioremediation.

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