

Fifth Semester B.Sc. Degree Examination, March/April 2022 (CBCS)

BIOTECHNOLOGY

Paper – V : Genetic Engineering and Environmental Biotechnology

Time: 3 Hours

Max. Marks: 70

16) What is cDNA ?

Instruction: Draw a neat labelled diagrams wherever necessary.

SECTION - A

I. Write short notes on the following.

(5×2=10)

- 1) ECOR1
- 2) pUC-19
- 3) Southern blotting
- 4) Gasohol
- 5) Renewable resources.

B KGF - 563 122

SECTION - B

II. Answer any four of the following.

 $(4 \times 5 = 20)$

- 6) Explain the salient feature of cosmid.
- 7) Write a note on DNA library construction.
- 8) Describe screening of recombinant cell by colony hybridization.
- Give an account on the treatment of municipal waste water and industrial effluents.
- 10) What is bioleaching? Add a note on bioleaching of gold and uranium.

SECTION - C

III. Answer any three of the following.

 $(3\times10=30)$

- 11) What are restriction enzyme? Give the types and mechanisms of their action.
- 12) Describe the production of human insulins by rDNA technology.