

B.Sc. VI Semester (Honours) Examination, 2021 (CBCS)

Subject : Botany

Paper : CC-14

(Plant Biotechnology)

Time : 2 Hours

Full Marks : 40

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any eight questions from the following 8x5=40

- i) What is totipotency? Give a brief idea on composition of MS media. 5
- ii) State the method of isolation of protoplast 5
- iii) What is micropropagation? Schematically represent the steps of micropropagation 5
- iv) Differentiate between somatic embryogenesis and zygotic embryogenesis 5
- v) Give a concise note on Restriction Endonuclease 5
- vi) Define vector. Mention the various kinds of vectors. 5
- vii) Write short notes on:
 - a) Ti-plasmid, b) Bt-cotton 5
- viii) What do you mean by recombinant DNA? Write the applications of PCR. 5
- ix) Schematically represent the *Agrobacterium* mediated gene transfer method in plant. 5
- x) Write a concise note on cDNA library. 5