



M 24901

Reg. No.:

Name:

IV Semester M.A./M.Sc./M.Com. Degree (Reg./Supple./Improv.)
Examination, March 2014

BOTANY

**Paper – XI : Elective – Special Paper
1. Biotechnology**

Time : 3 Hours

Max. Marks : 80

I. Answer **any two** of the following :

(2×10=20)

- 1) Explain methods of culturing and harvesting algal biomass.
- 2) Explain PCR and its applications.
- 3) What are cDNA libraries and their implications ?
- 4) Give an account of restriction mapping of DNA.

II. Answer **any one** of the following :

(1×10=10)

- 5) What is hybridoma technology ? Explain the production of monoclonal antibodies.
- 6) Explain Northern blot technique.

III. Answer **any four** of the following :

(4×5=20)

- 7) What is T-DNA ?
- 8) What are the uses of biosensors ?
- 9) Explain intellectual property rights.
- 10) What is gene silencing ?
- 11) Explain genomic library.
- 12) Explain the uses of single cell proteins.

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IV. Answer **any six** of the following :

(6×3=18)

- 13) Agrobacterium
- 14) pBR 322
- 15) Restriction map
- 16) Recombinant protein
- 17) Reverse transcription
- 18) Clone
- 19) Vectors
- 20) Insect resistance.

V. Answer **any six** of the following :

(6×2=12)

- 21) DNA primers
- 22) Codons
- 23) Plasmid
- 24) Chlorella
- 25) Mushrooms
- 26) Reporter genes
- 27) Gene tagging
- 28) Patent.