



M 27066

Reg. No. :

Name :

IV Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.)
Examination, March 2015
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) Describe the structure and applications of pBR 322 and pUC plasmids.
- 2) Explain Northern blotting technique. Add a note on its application in molecular analysis of genes.
- 3) Explain different objectives and applications of Bt cotton.
- 4) Give an account on physical methods involved in gene transfer technique.

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

(1×10=10)

- 5) Give an account on Intellectual property rights, patenting and patenting laws.
- 6) Give an account on expression strategies of heterologous genes.

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

(4×5=20)

- 7) Write a note on cDNA library.
- 8) Explain mushroom cultivation.
- 9) Give a note on Cointegrate vectors.
- 10) Write an account on protein refolding.
- 11) What is hybridoma technology ?
- 12) Write a note on herbicide resistance plants.

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M 27066



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

(6×3=18)

- 13) Cosmids.
- 14) Gene silencing.
- 15) Site directed mutagenesis.
- 16) Transposons.
- 17) Annealing.
- 18) Antibiotic selection.
- 19) Terminator gene.
- 20) T-DNA.

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

(6×2=12)

- 21) *Chlorella*.
- 22) Ri plasmid.
- 23) Biochip.
- 24) Gene tagging.
- 25) Taq polymerase.
- 26) Ligase.
- 27) Dideoxy method.
- 28) Adaptors.