

Roll No. _____

[Total No. of Pages : 2

SVIS- 318 A-17
B.Sc. VIth Semester Degree Examination
Biotechnology
(Plant and Animal Cell Culture)
Paper : 6.6

Time : 3 Hours

Maximum Marks : 80

Instruction to Candidates : 1) Answer all questions.

2) Draw the diagrams wherever necessary.

I Answer the following in a word or sentence each :

(15 × 1 = 15)

- 1) Explant.
- 2) Endosperm.
- 3) Dolly.
- 4) Myeloma cells.
- 5) Hexaploid.
- 6) In vitro culture.
- 7) Pluripotency.
- 8) Nitech medium.
- 9) Organogenesis.
- 10) Somaclones.
- 11) Continuous cell line.
- 12) Human genome.
- 13) Embryoids.
- 14) PEG.
- 15) Cytokinin.

(5 × 5 = 25)

II Write a note on any **five** of the following.

- 16) Composition of Ms medium & Bs medium.
- 17) Role of growth regulators in tissue culture.
- 18) In vitro haploid production.
- 19) Somaclonal variations & their uses.
- 20) Serum and its quality for animal cell culture.
- 21) Preparation regenerative medicines.
- 22) List of ethical issues of animal Biotechnology.

III Answer any **FOUR** of the following questions.

(4 × 10 = 40)

- 23) Explain the steps involved in animal cell culture and add its applications.
- 24) Give an account on goals & achievements of HGP.
- 25) Explain single cell suspension culture and mutant selection for agronomy.
- 26) Explain protoplast isolation and principle. Add its applications.
- 27) Give an account on somatic cell hybridization and add its applications.
- 28) Describe the method of gene therapy for the treatment of diseases.

