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BSH 551

IV Semester M.Sc. Degree Examination, Sept./Oct. 2022

(CBCS)

BIOSCIENCES

Biotechnology

Time : 3 Hours

Max. Marks : 70

Write short notes on **any four** of the following.

(4×4=16)

1. a) Biopesticides
- b) Synthetic seeds
- c) Stem cells
- d) Restriction enzymes
- e) DNA fingerprinting
- f) Single cell proteins.

Write explanatory notes on **any five** of the following.

(5×6=30)

2. Fermentation techniques: types and applications.
3. Protoplast culture, fusion and hybridoma technology.
4. Super ovulation and cloning.
5. PCR and RT-PCR techniques and their applications.
6. Microbial polysaccharides and bioplastics.
7. Plant derived antibodies and vaccines.
8. Cytotoxicity and cell viability assays.

P.T.O.



Write essay on **any two** of the following.

(2×12=24)

9. Describe transgenic microbes and their applications. Add a note on its advantages and disadvantages.
10. Discuss the process and application of transgenic crop improvement techniques for disease and herbicide resistance in plants.
11. What are expression systems ? Explain their types and application in various hosts.
