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**MBS 456** 

## II Semester M.Sc. Degree Examination, September/October 2022 MICROBIOLOGY Microbial Biotechnology

Time: 3 Hours Max. Marks: 70

I. Write short notes on any five of the following:

 $(5 \times 3 = 15)$ 

- 1) Heterologous protein
- 2) PHB.
- 3) Functional Foods.
- 4) Copyrights.
- 5) Peptide vaccines.
- 6) Catabolite repressor.
- 7) Structural Genes.

II. Write notes on any five of the following:

 $(5 \times 5 = 25)$ 

- 8) Baculovirus gene expression system.
- 9) L-ascorbic acid synthesis
- 10) Criteria for Microbial patenting.
- 11) Environmental Protection Act.
- 12) Single Cell Protein.
- 13) cDNA.
- 14) Production of monoclonal antibodies.

## III. Answer any three of the following:

 $(3 \times 10 = 30)$ 

- 15) Describe the role of regulatory promoters for gene expression in *Bacillus Subtilis*.
- 16) Explain screening and production of Streptomycin.
- 17) Write an account on various sources, isolation and applications of Probiotics.
- 18) Discuss the procedures to obtain a patent for biotechnological inventions.
- 19) Elaborate the techniques involved in the production of any two genetically engineered food and their applications.