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**MBS 555**



**IV Semester M.Sc. Examination, September/October 2022**  
**(CBCS-PG-CGPA)**  
**MICROBIOLOGY**  
**Research Methodology**

Time : 3 Hours

Max. Marks : 70

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

**(5×3=15)**

- 1) Impact factor.
- 2) Research objectives.
- 3) Chi-square test.
- 4) Standard error.
- 5) Animal ethical committee.
- 6) Peer reviewed journal.
- 7) Disposal of recombinants.

II. Write notes on **any five** of the following :

**(5×5=25)**

- 8) Components of research design.
- 9) Bio-safety levels.
- 10) Literature Survey.
- 11) ANOVA.
- 12) Multiple-range test.
- 13) Intellectual Property Rights.
- 14) Features of *E.coli* as model organism.

III. Write short notes on **any three** of the following :

**(3×10=30)**

- 15) Explain the tools and software for the detection of plagiarism.
  - 16) Discuss the general format for research publication in research journals.
  - 17) Discuss the statistical data analysis using computer softwares.
  - 18) Write an account on patenting of microorganisms.
  - 19) Explain the CPCSEA guidelines for maintenance, handling and treating of biological samples.
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