

M.Sc. (Micro) Semester - 4 (CBCS) Examination
April/May-2022 (NEW COURSE)
Research Methodology, IPR and Biosafety(Core)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Section-I**Q.1 Answer the following (any seven out of eight)** 07

1. What are TRIPS explain in brief.
2. What are the benefits of IPR in biological sciences?
3. Give the two examples of plagiarism tools.
4. Define ANOVA and explain its importance in biological sciences.
5. What is geographical indication?
6. Define the term optimization.
7. What do you mean by provisional patent?
8. Give the statement on Hypotheses testing.

Q. 2 Answer the following 14

- A. Define the research problem and explain aims and objectives of the research.
- B. Discuss the graphical data and explain the importance of data analysis.

OR**Q. 2 Answer the following**

1. Write detail note on plagiarism.
2. Write a note on multivariate analysis.

Q. 3 Discuss the types of patents and its application with time and fee structure. 14**OR****Q. 3 Answer the following**

1. Explain the international framework for IP protection.
2. Write note on Trademark Law.

Section-II**Q.1 Answer the following (any seven out of eight)** 07

1. Define the role of RCGM.
2. Enlist the national and international funding agency.
3. What is difference between research paper and review paper.
4. Give an example of organisms which handle under BSL-2 facility.
5. Define the criteria of risk assessment.
6. What is GMO and LMO?
7. Define primary containment.
8. Give an examples of research scheme.

Q. 2 Answer the following 14

- A. Discuss types of scientific research.
- B. Discuss the role of international funding agency in R&D.

OR**Q. 2 Answer the following**

1. Enlist basic components of research proposal and frame the objective, methodology and novelty of any life sciences topic.
2. Write a note on research schemes and its importance in academic institutes.

Q. 3 Explain role of institutional biosafety committee and explain the function of RCGM and GEAC for the purpose of GMO. 14**OR****Q. 3 Answer the following**

1. Write note on recommendation of biosafety levels in infectious agents.
2. Write detailed note on Biosafety level-2 and 3.
