SUBJECT CODE: 19BI/PC/RM24

M. Sc. DEGREE EXAMINATION, APRIL 2023
BIOINFORMATICS
SECOND SEMESTER

COURSE : **CORE**
PAPER : **RESEARCH METHODOLOGY**
TIME : **3 HOURS**   **MAX. MARKS: 100**

SECTION – A

ANSWER ALL QUESTIONS   **(20 X 1=20)**

1. _____ is the conceptual framework in which the research is carried out.
   a) Research hypothesis   b) Synopsis of Research
   c) Research paradigm   d) Research design

2. The main aim of the scientific method in the research field is to _____
   a) Improve data interpretation   b) Confirm triangulation
   c) Introduce new variables   d) Eliminate spurious relations

3. What types of issues do pilot studies attempt to reduce?
   a) Systematic error and unexpected problems
   b) Systematic and non-systematic errors
   c) Anticipated and unrealistic logistical challenges
   d) Variation and mistaken errors

4. How is random sampling helpful?
   a) Reasonably accurate   b) An economical method of data collection
   c) Free from personal biases   d) All of the above

5. Which one among the following statements is false in the context of participatory research?
   a) It recognizes knowledge as power   b) It is a collective process of inquiry
   c) It emphasizes people as experts   d) Its sole purpose is the production of
                                               knowledge

6. Type 1 error occurs when the null hypothesis is _____ when it is true.

7. Longitudinal research deals with _____

8. Authenticity of a research finding is its_____

9. Non-probability sampling is otherwise termed as _____

10. Snowballing is an example of _____

11. Define "Archives".

12. List different bibliography types.

13. What are different types of data?

14. Mention any two document types.

15. Appreciate any two key factors to write a review of literature.
16. What are LaTeX commands used for image insertion?
17. Comment on the importance of plagiarism check.
18. Justify the need of a pilot study.
19. How to critique a paper?
20. Are fictitious data allowed in literature review?

SECTION – B

ANSWER ANY FOUR QUESTIONS. EACH ANSWER SHOULD NOT EXCEED 500 WORDS. ALL QUESTIONS CARRY EQUAL MARKS. **(4 x 10 = 40)**

21. Comment on different sampling techniques with suitable examples.
22. Elaborate the importance of a pilot study.
23. Describe the types of plagiarism and how to avoid them.
24. Highlight the facts to be considered during writing for non-native audiences.
25. Enumerate the data collection techniques.
26. Describe about citation, types of citation and their impact on research.
27. Explain any two reference management softwares in detail.

SECTION – C

ANSWER ANY TWO QUESTIONS. EACH ANSWER SHOULD NOT EXCEED 1200 WORDS. ALL QUESTIONS CARRY EQUAL MARKS. **(2 x 20 = 40)**

28. Describe the Action plan in directing research and discuss the importance and usefulness of such plans.
29. Appreciate the importance of writing well. Comprehend the different syntaxes that should be considered when writing well.
30. Discuss the types of sampling with appropriate examples.
31. Elaborate the significance of patent and explain basmati, neem and turmeric cases.

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