

(6 pages)

Reg. No. : .....

Code No. : 6514

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M.Sc. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2022.

Third Semester

Microbiology — Core

RESEARCH METHODOLOGY

(For those who joined in July 2021 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which is the main object of research?
  - (a) Discovering new facts
  - (b) Testing old facts
  - (c) Modifying old facts
  - (d) All of the above

2. Which one of the following is pre-requisite to carry research?
  - (a) Developing a research design
  - (b) Formulating research question
  - (c) Deciding about the data analysis procedure
  - (d) Formulating a research hypothesis
3. What is the name of conceptual frame work in which the research is carried out?
  - (a) Research hypothesis
  - (b) Synopsis of research
  - (c) Research paradigm
  - (d) Research design
4. "There is no relationship between higher motivation level and higher efficiency" - is an example of which type of hypothesis?
  - (a) Alternative hypothesis
  - (b) Null hypothesis
  - (c) Co relational hypothesis
  - (d) Research hypothesis
5. A blue print of research work is known as \_\_\_\_\_
  - (a) Sampling design
  - (b) Research design
  - (c) research hypothesis
  - (d) Research approach

6. Which one forms a part of experimental design?
- (a) Matching
  - (b) Randomization
  - (c) Before - after analysis
  - (d) All of the above

7. A written format of research work is known as
- (a) Research paper      (b) Monographs
  - (c) Project report      (d) Research report

8. Report present conclusion work based on \_\_\_\_\_
- (a) Investigation      (b) Intuition
  - (c) Belief      (d) Impression

9. In a thesis, figures and tables are included in \_\_\_\_\_
- (a) The appendix
  - (b) A separate chapter
  - (c) The concluding chapter
  - (d) The text itself

10. Why do need to review the existing literature?
- (a) To make sure you have a long list of reference
  - (b) Because without it, you could never reach the required word count
  - (c) To find out what is already known about your area of interest
  - (d) To help in your general studying

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).  
Each answer should not exceed 250 words.

11. (a) Write the criteria which are followed by the researcher before selection of a research problem.

Or

- (b) Explain the characteristics of pure and applied research.

12. (a) Explain the importance of ethics in research.

Or

- (b) List out the characteristics of hypothesis.

13. (a) Portray the significance of a research design.

Or

- (b) Describe the features of good of research design.

14. (a) Display the techniques and importance of oral presentation of research findings.

Or

(b) Enumerate the steps of research report writing.

15. (a) What is publication ethics?

Or

(b) Give a short note on plagiarism.

PART C -- (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)  
Each answer should not exceed 600 words.

16. (a) Describe the different types of research approaches. Note on criteria of a good research.

Or

(b) Discuss the sources of research problem and the factors affecting research problem.

17. (a) Define and discuss the objectives and importance of hypothesis in research.

Or

(b) Distinguish between the following :

(i) Simple hypothesis and composite hypothesis

(ii) Null hypothesis and alternate hypothesis

(iii) acceptance region and rejection region

(iv) Type I error and type II error.

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18. (a) Describe term research design and enumerate the various types of research design.

Or

(b) Describe important concepts relating to research design.

19. (a) Explain the format and contents of a research report.

Or

(b) Describe the techniques and significance of report writing.

20. (a) Describe the preparation format of tables, figures and plates in thesis writing.

Or

(b) Explain the following :

(i) Reference citing and listing

(ii) Conclusion and bibliography.

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