

(6 Pages)

Reg. No. :

Code No. : 6455

Sub. Code : PMBM 34

M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2021

Third Semester

Microbiology — Core

RESEARCH METHODOLOGY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answers :

1. The following are features of a good research study except
 - (a) Should be replicable
 - (b) Should be systematic and objective
 - (c) Should be completed in three months
 - (d) Should be ethical and unbiased

2. A research problem is feasible only when
 - (a) It has utility and relevance
 - (b) It is researchable
 - (c) It is new and adds something to knowledge
 - (d) All the above

3. Testing hypothesis is a
 - (a) Inferential statistics
 - (b) Descriptive statistics
 - (c) Data preparation
 - (d) Data analysis

4. Research is not considered ethical if it
 - (a) Tries to prove a particular point
 - (b) Does not ensure privacy and anonymity of the respondent
 - (c) Does not investigate the data scientifically
 - (d) Is not of a very high standard

5. What is cross sectional design?
- (a) A study of one particular sections of society e.g. middles class
 - (b) One that is devised when the researcher in a bad mood
 - (c) The collection of data from more than one case at one moment in time
 - (d) A comparison of two or more variable over a long period of time
6. Which of the following is a discrete variable?
- (a) Height
 - (b) Age
 - (c) Miles per gallon
 - (d) Number of children
7. A research paper is a brief report of research work based on
- (a) Primary data only
 - (b) Secondary data only
 - (c) Both primary and secondary data
 - (d) None of the above
8. When referencing other works you have cited within the text of the report you should
- (a) State the first and last name of the author
 - (b) Use the author, date citation method
 - (c) Use an asterisk and a footnote
 - (d) Insert the complete citation in parenthesis

9. Which one of the following tool is best for development of report or thesis?
- (a) Excel
 - (b) Power point presentation
 - (c) Word document
 - (d) None of the above
10. Circle graphs are used to show
- (a) How various sections share in the whole
 - (b) How various parts are related to the whole
 - (c) How one whole is related to other wholes
 - (d) Now one part is related to other parts

PART B — (5 × 5 = 25 marks)

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

11. (a) What are the principles should be followed in research approaches.

Or

- (b) Briefly explain about types of research.

12. (a) Brief out characteristics of hypothesis.

Or

- (b) What are the difficulties in the formulations of hypothesis?

13. (a) What are the uses of regression analysis?

Or

(b) What are the factors affecting research design?

14. (a) What are the adaptations followed in interpretation?

Or

(b) Write short note on oral presentation.

15. (a) Write about the essential features of an abstract.

Or

(b) Enumerate components of a tabular representation of result data and differentiate between histogram and bar charts.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b)

Each answer should not exceed 600 words.

16. (a) Write an essay on techniques in defining the research problem.

Or

(b) Give an account on various steps in scientific research method.

17. (a) Write in detail about hypothesis testing procedures.

Or

(b) Explain the ethics followed in gene therapy with suitable example.

18. (a) Analyse the features of a good research design.

Or

(b) Explain in detail about different research design.

19. (a) Give an account on types of report with suitable examples.

Or

(b) Describe the steps involved in writing research report.

20. (a) What is the logical format for research paper writing explain?

Or

(b) Brief out the applications of computer in research.