

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – December 2023
Programme Name: M Tech (NAOE)
Semester: 1st semester
Subject Code: PG11T2106
Subject Name: Research Methodology

Date	: 01-01-2024	Max Marks: 60
Duration	: 03 Hrs	Pass Marks: 30

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Options, if any, are specified in respective sections.

Section A:

10 MCQs of 01 Mark Each = 10 Marks

1. Which of the following is NOT a fundamental research method?
 - a) Experimental
 - b) Survey
 - c) Descriptive
 - d) Developmental

2. What is the purpose of a research literature review?
 - a) To present the research findings
 - b) To summarize the methodology
 - c) To review and synthesize existing research on the topic
 - d) To prepare abstract

3. Which statistical test is used to determine the relationship between two continuous variables?
 - a) Chi-square test
 - b) T-test
 - c) Pearson correlation coefficient
 - d) Analysis of variance (ANOVA)

4. What is the primary purpose of the "discussion" section in a research report?
 - a) To provide a summary of the literature review
 - b) To describe the research methodology
 - c) To present the research findings
 - d) To interpret and analyze the research findings

5. Which of the following is an example of a non-parametric statistical test?
 - a) Chi-square test
 - b) T-test
 - c) Analysis of variance (ANOVA)
 - d) Pearson correlation coefficient

6. Which of the following is not a component of research methodology?
 - a. Research design
 - b. Literature review
 - c. Data collection methods
 - d. Data analysis

7. What is the key difference between qualitative and quantitative research methodologies?
 - a. Sample size
 - b. Research objectives
 - c. Data collection methods
 - d. Data analysis techniques

8. What is the primary purpose of an abstract in a scientific paper?
 - a. To summarize the main points of the paper
 - b. To provide an introduction to the study
 - c. To present the research findings
 - d. To list the references used

9. Plagiarism in scientific writing refers to:
 - a. Incorrectly citing sources in the reference list.
 - b. Using someone else's work or ideas without proper attribution.
 - c. Writing a paper without peer review.
 - d. Falsifying research data.

10. Which of the following is an important ethical consideration when reporting research results?
 - a. Emphasizing the positive outcomes of the research
 - b. Reporting both significant and non-significant findings
 - c. Withholding information that could be critical to the study
 - d. Only citing research that supports your findings

Section B:

5 out of 7 Questions of 8 Marks Each = 40 Marks

11. Define research and explain in detail about the differences between fundamental research and applied research.

12. Describe some important points when presenting research results in a scientific paper. What are the best practices for creating figures and tables to represent data?

13. Provide an in-depth comparison of thesis, research articles, technical reports, and project proposals.

14. Describe the process of manuscript submission and peer review in academic publishing. What are the challenges and benefits of the peer review process?
15. Discuss the purpose and significance of a literature review in a research paper. Explain the steps involved in conducting a comprehensive literature review.
16. Analyse the impact of digital technologies on copyright, including issues related to piracy and the distribution of content on the internet.
17. Discuss the steps involved in conducting simple random sampling. How can researchers ensure that their sample is truly representative of the whole data?

Section C:

1 out of 3 Questions of 10 Marks Each = 10 Marks

18. Explain the importance of a well-defined research methodology in the research process. Discuss the key components that should be considered when devising a research methodology.
19. Provide an overview of intellectual property rights. Explain the different categories of intellectual property with main focus on patents and trademarks.
20. Explain the ethical issues related to scientific writing, including authorship, conflicts of interest, and data manipulation.