



PhD Degree Examination: NOV/DEC 2023

(Regulation 2018)

ODD Semester

PhD COURSE WORK

P18CHT0001: RESEARCH METHODOLOGY

COURSE OUTCOMES

CO1: Comprehend the basics in research methodology and apply them in research/ project work.

CO2: Use the appropriate tools to collect and edit data in an organized manner and analyse it accordingly

CO3: Formulate research problem

CO4: To draft a research report

CO5: Comprehend the concept of plagiarism and its consequences

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

| 1. | Key difference between research methods and research methodology is | | CO1 | [K ₂] | | | | |
|---------------------------------|--|---|--------|--|---------------------------------|------------------------|--|--|
| | a) | Methods refer to the techniques used, while methodology is the philosophical framework. | b) | Methods pertain to qualitative research, while methodology is for quantitative research. | | | | |
| | c) | Methodology involves data collection, while methods focus on data analysis. | d) | There is no distinction between methods and methodology. | | | | |
| 2. | Identify the research approach relies on collecting data from existing sources | | CO1 | [K ₂] | | | | |
| | a) | Qualitative approach | b) | Mixed methods approach | | | | |
| | c) | Quantitative approach | d) | Secondary data approach | | | | |
| 3. | Select the measure of variability which is highly sensitive to extreme values in a dataset | | CO2 | [K ₂] | | | | |
| | a) | Range | b) | Interquartile Range (IQR) | | | | |
| | c) | Standard Deviation | d) | Variance | | | | |
| 4. | Matching type item with multiple choice code | | CO2 | [K ₂] | | | | |
| | <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th>List I</th> <th>List II</th> </tr> </thead> <tbody> <tr> <td>A. Collection of Selection Data</td> <td>i. Random, Stratified,</td> </tr> </tbody> </table> | | List I | List II | A. Collection of Selection Data | i. Random, Stratified, | | |
| List I | List II | | | | | | | |
| A. Collection of Selection Data | i. Random, Stratified, | | | | | | | |

| | | | | | |
|-----|---|--|--|--|-------------------|
| | | B. Citation Techniques | ii. The consistency and stability of measurement over time | | |
| | | C. Dependability of Measures | iii. Present and credit sources in academic writing | | |
| | | D. Sampling: Methods | iv. Solve real-world problems | | |
| | a) | i ii iii iv | b) | iv iii ii i | |
| | c) | i iii ii iv | d) | i ii iv iii | |
| 5. | Select the type of research focuses on practical problem-solving | | | CO3 | [K ₂] |
| | a) | Experimental Research | b) | Survey Research | |
| | c) | Fundamental Research | d) | Applied Research | |
| 6. | What stage involves drawing conclusions based on data analysis in the scientific research process? | | | CO3 | [K ₁] |
| | a) | Experimentation | b) | Working Hypotheses | |
| | c) | Data Analysis | d) | Proof | |
| 7. | <p>Assertion (A): Methods of citation are crucial in scientific writing primarily to give credit to sources and avoid plagiarism.</p> <p>Reason (R): Citations provide a clear trail for readers to access referenced material and contribute to the overall integrity of research documents.</p> | | | CO4 | [K ₂] |
| | a) | Both A and R are Individually true and R is the correct explanation of A | b) | Both A and R are Individually true but R is not the correct explanation of A | |
| | c) | A is true but R is false | d) | A is false but R is true | |
| 8. | Primary purpose of literature collection in scientific research is | | | CO4 | [K ₁] |
| | a) | Creating fictional stories | b) | Gathering evidence and existing knowledge | |
| | c) | Establishing personal opinions | d) | Ignoring existing research | |
| 9. | <p>Plagiarism constitutes</p> <p>A. Collaborative work with proper attribution</p> <p>B. Copying and pasting without proper citation</p> <p>C. Presenting someone else's work as your own</p> <p>D. Independent research</p> | | | CO5 | [K ₂] |
| | a) | A,B | b) | B,D | |
| | c) | B,C | d) | A,B,C | |
| 10. | What is unintentional plagiarism? | | | CO5 | [K ₁] |
| | a) | Copyright infringement | b) | Purposeful use of others' work | |
| | c) | Collaborative research | d) | Accidental or careless use of sources without proper citation | |

PART B (10 x 2 = 20 Marks)

| | | | |
|-----|---|-----|-------------------|
| 11. | List the methods of gathering information | CO1 | [K ₂] |
| 12. | Write the primary consideration when selecting a research topic | CO1 | [K ₁] |
| 13. | What is the key characteristic of a binomial distribution? | CO2 | [K ₁] |
| 14. | How can research methods be applied in real-world scenarios? | CO2 | [K ₂] |
| 15. | Differentiate between laboratory experiments and field studies. | CO3 | [K ₂] |
| 16. | What does a bibliography in thesis writing primarily achieve? | CO4 | [K ₁] |
| 17. | Mention the particulars receive emphasis during the preparation of scientific documents | CO4 | [K ₂] |
| 18. | Define scientific documentation design | CO4 | [K ₁] |
| 19. | What are the consequences of plagiarism? | CO5 | [K ₂] |
| 20. | What does copyright infringement mean in the context of plagiarism? | CO5 | [K ₁] |

PART C (6 x 5 = 30 Marks)

| | | | | |
|-----|--|---|-----|-------------------|
| 21. | Compare and contrast positivist and interpretive research approaches. How do these approaches shape the design and execution of research studies | 6 | CO1 | [K ₃] |
| | | | | |
| 22. | Differentiate between normal, poisson, and binomial distributions. How are these distributions applied in various fields of research? | 6 | CO2 | [K ₂] |
| | | | | |
| 23. | What role do hypotheses play in the research process, and how do they contribute to scientific inquiry? | 6 | CO3 | [K ₂] |
| | | | | |
| 24. | Define the scientific approach in research and explain its significance in the exploration of various problems. | 6 | CO3 | [K ₂] |
| | | | | |
| 25. | Define the primary focus of scientific documentation design, and why is it crucial in research communication? | 6 | CO4 | [K ₂] |
| | | | | |
| 26. | Explain the concept of unintentional plagiarism and discuss ways to prevent it in academic writing. | 6 | CO5 | [K ₂] |

**Answer any FOUR Questions
PART D (4 x 10 = 40 Marks)**

| | | | | |
|-----|--|----|-----|-------------------|
| 27. | Examine the various types of research, providing examples of scenarios where each type is most appropriately applied. How do these types cater to different research goals and questions | 10 | CO1 | [K ₃] |
|-----|--|----|-----|-------------------|

| | | | | |
|-----|---|----|-----|-------------------|
| 28. | Compare and contrast in-text citations and bibliographic citations. How do these forms contribute to the clarity, credibility, and integrity of research writing? | 10 | CO2 | [K ₃] |
| 29. | Outline the various stages of scientific research, emphasizing the significance of each stage in the research process. | 10 | CO3 | [K ₃] |
| 30. | Explain the role of presentation techniques and writing skills in conveying scientific information. How do these aspects impact the communication of research findings to diverse audiences? | 10 | CO4 | [K ₂] |
| 31. | Reflect on the ethical implications of plagiarism. How does understanding the definition and various forms of plagiarism contribute to fostering academic integrity and responsible research practices? | 10 | CO5 | [K ₃] |
