21CSC3S3LP

M.Sc. III Semester Degree Examination, April/May - 2024
COMPUTER SCIENCE
Research Methodology
(NEP)

Time : 1 Hour   Maximum Marks : 30

Note : *Answer **all** of the following.*

1. Which of the following best defines research methodology ?   **1**
   (A) The collection and analysis of data
   (B) The process of formulating research questions
   (C) The systematic approach to conducting research
   (D) The interpretation of research findings

2. What is the primary purpose of research methodology ?   **1**
   (A) To establish research objectives
   (B) To design research instruments
   (C) To identify research questions
   (D) To provide a framework for conducting research

3. Which of the following is NOT a characteristic of good research methodology ?   **1**
   (A) Rigor   (B) Flexibility   (C) Replicability   (D) Validity

4. Which of the following is an example of quantitative research ?   **1**
   (A) Case study   (B) Ethnography
   (C) Survey   (D) Phenomenology

5. What type of research relies on numerical data and statistical analysis ?   **1**
   (A) Qualitative research   (B) Quantitative research
   (C) Mixed methods research   (D) Action research

6. What is the first step in the research process ?   **1**
   (A) Collecting data
   (B) Formulating research questions
   (C) Conducting literature review
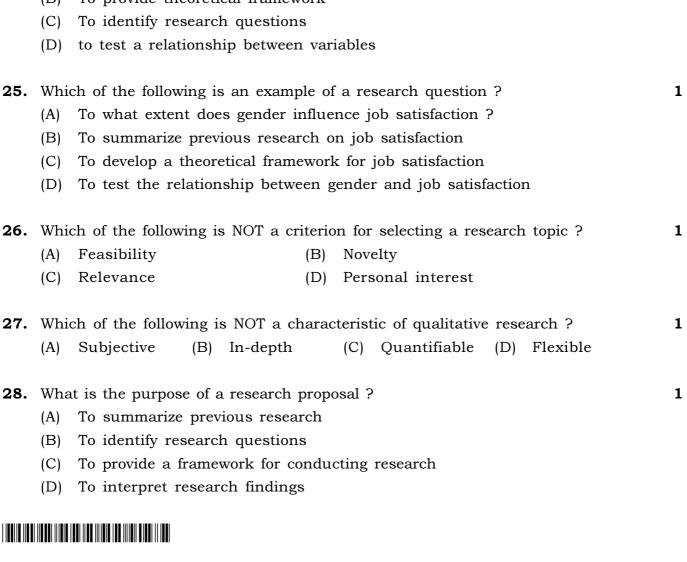   (D) Identifying research problem

7. Which of the following is NOT a component of a research proposal ? **1**
(A) Introduction   (B) Methodology   (C) Results   (D) Conclusion

8. What is the purpose of a literature review in research ? **1**
(A) To summarize previous research
(B) To identify research gaps
(C) To provide theoretical framework
(D) All of the above

9. Which of the following sampling techniques ensures each member of the population **1** has an equal chance of being selected ?
(A) Convenience sampling   (B) Purposive sampling
(C) Stratified sampling   (D) Random sampling

10. What is a Hypothesis ? **1**
(A) A tentative prediction about the relationship between variables
(B) A summary of research findings
(C) A statement of research objectives
(D) A theoretical framework

11. Which of the following is a dependent variable ? **1**
(A) The variable that is manipulated by the researcher
(B) The variable that is measured or observed in an experiment
(C) The variable that remains constant in an experiment
(D) The variable that is affected by the independent variable

12. What is the purpose of statistical analysis in research ? **1**
(A) To summarize data   (B) To test hypotheses
(C) To identify patterns   (D) All of the above

13. Which of the following is an example of a qualitative research method ? **1**
(A) Experiment   (B) Survey   (C) Interview   (D) Questionnaire

14. What is triangulation in research ? **1**
(A) The use of multiple methods or data sources to validate findings
(B) The process of conducting research in three different locations
(C) The statistical analysis of three variables
(D) The combination of qualitative and quantitative research methods

15. What is a research instrument ?   1
   (A) A tool used to collect data   (B) A theoretical framework
   (C) A research hypothesis   (D) A summary of research findings

16. What is the purpose of a research design ?   1
   (A) To identify research questions
   (B) To summarize previous research
   (C) To provide a framework for conducting research
   (D) To interpret research findings

17. What is the difference between primary and secondary data ?   1
   (A) Primary data is collected first-hand, while secondary data is collected from existing sources
   (B) Primary data is numerical, while secondary data is qualitative
   (C) Primary data is collected through experiments, while secondary data is collected through surveys
   (D) Primary data is more reliable than secondary data

18. Which of the following is an example of a research objective ?   1
   (A) To summarize previous research
   (B) To test a hypothesis
   (C) To provide theoretical framework
   (D) To identify research questions

19. What is the difference between correlation and causation ?   1
   (A) Correlation implies a cause-effect relationship, while causation implies a statistical association
   (B) Correlation refers to qualitative data, while causation refers to quantitative data
   (C) Correlation measures the strength of a relationship, while causation explains why the relationship exists
   (D) Correlation does not imply causation

20. Which of the following is an example of a qualitative research method ?   1
   (A) Survey   (B) Case study
   (C) Experiment   (D) Observational study

21. Which of the following is NOT a type of research design ?   1
   (A) Experimental (B) Descriptive   (C) Observational (D) Hypothetical

22. What is the purpose of data analysis in research ? **1**
   (A) To summarize data   (B) To test hypotheses
   (C) To identify patterns   (D) All of the above

23. What is the difference between reliability and validity in research ? **1**
   (A) Reliability refers to the consistency of measurements, while validity refers to the accuracy of measurements.
   (B) Reliability refers to the accuracy of measurements, while validity refers to the consistency of measurements
   (C) Reliability and validity are interchangeable terms
   (D) Reliability and validity both measure the same concept

24. What is the purpose of a research hypothesis ? **1**
   (A) To summarize previous research
   (B) To provide theoretical framework
   (C) To identify research questions
   (D) to test a relationship between variables

25. Which of the following is an example of a research question ? **1**
   (A) To what extent does gender influence job satisfaction ?
   (B) To summarize previous research on job satisfaction
   (C) To develop a theoretical framework for job satisfaction
   (D) To test the relationship between gender and job satisfaction

26. Which of the following is NOT a criterion for selecting a research topic ? **1**
   (A) Feasibility   (B) Novelty
   (C) Relevance   (D) Personal interest

27. Which of the following is NOT a characteristic of qualitative research ? **1**
   (A) Subjective   (B) In-depth   (C) Quantifiable   (D) Flexible

28. What is the purpose of a research proposal ? **1**
   (A) To summarize previous research
   (B) To identify research questions
   (C) To provide a framework for conducting research
   (D) To interpret research findings

29. Which of the following is an example of null hypothesis ? **1**

    (A) There is no relationship between income and education level

    (B) There is a positive relationship between income and education level

    (C) There is negative relationship between income and education level

    (D) There is a significant difference between income and education level

30. What is the purpose of a research ethics review ? **1**

    (A) To ensure research is conducted ethically

    (B) To identify research questions

    (C) To provide a framework for conducting research

    (D) To interpret research findings

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