REV-01
BMLT/57/29/34

2025/12

SET B

BACHELOR OF MEDICAL LABORATORY TECHNOLOGY
FIFTH SEMESTER
RESEARCH METHODOLOGY
BMLT - 502

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs. **Full Marks: 70**

(Objective)

Time: 30 min. **Marks: 20**

Choose the correct answer from the following: ***1×20=20***

1. The increase of sample size
   a. reduces sampling bias
   b. increases sampling error
   c. reduces sampling error
   d. increases sampling bias

2. Judgement sampling technique falls under the category of
   a. Random sampling
   b. Mixed sampling
   c. Probability sampling
   d. Non probability sampling.

3. When a sample is chosen it is available to the researcher is known as
   a. Probability sampling
   b. Convenience sampling
   c. Quota sampling
   d. Judgement sampling

4. In sampling, the lottery method is used for
   a. Randomization
   b. Conceptualization
   c. Interpretation
   d. Theorization

5. If a research project is set up so that everybody in the population of interest has an equal chance of being included in the sample, the research involves
   a. Quota sampling
   b. Judgement sampling
   c. Simple random sampling
   d. Convenience sampling

6. Which of the following is an example of an ordinal scale?
   a. Likert scale
   b. Ranking
   c. Temperature in Celsius.
   d. Gender

7. _____scale is used for labelling variables into distinct classifications.
   a. Ratio
   b. Interval
   c. Ordinal
   d. Nominal

8. _____is a core characteristic of quantitative research?
   a. Focus on numerical data for statistical analysis.
   b. Focus on words and language.
   c. Use of subjective data collection methods.
   d. Exploration of "why" questions in a deep and nuanced way

9. Which of the following is a commonly used data collection method in qualitative research?
   a. Surveys
   b. Observations
   c. Experiments
   d. Correlation studies.

10. Which of the following is not a characteristic of qualitative research?
    a. Focuses on subjective experience
    b. Uses statistical analysis
    c. Emphasizes context and complexity
    d. Allows for multiple perspectives

11. What is the primary purpose of a research proposal?
    a. To present the findings of the research.
    b. To outline a plan for a research study and justify the need for the research.
    c. To secure funding for a research project
    d. To conduct the actual research

12. _____ is a probability sampling method.
    a. Convenience sampling.
    b. Quota sampling.
    c. Stratified sampling.
    d. Judgement sampling.

13. Which of the following tools is best suited for measuring individuals' opinions and attitudes?
    a. Questionnaire
    b. Opinionnaire
    c. Checklist
    d. Perception scale

14. Which of the following is a source of a research problem?
    a. Expert opinions and guidance from a research guide.
    b. A lack of interest in a topic
    c. Over-researched and common topics
    d. Classroom lectures and discussions

15. A well-formulated research problem must be
    a. Highly theoretical and abstract
    b. Significant, relevant, and feasible to study
    c. Easily solved with immediate available data
    d. Controversial and overly general

16. What type of research design is used to establish cause-and-effect relationships?
    a. Descriptive research
    b. Correlation research
    c. Experimental research
    d. Exploratory reseaarch

17. _____ is NOT a branch of biostatistics.
    a. Experimental biostatistics
    b. Inferential biostatistics
    c. Descriptive biostatistics.
    d. Numerical biostatistics

18. Which of the following is a core principle of research ethics?
    a. Maximizing data collection regardless of participant burden
    b. Pressuring participants to enroll in a study.
    c. Sharing research findings publicly without participant consent
    d. Ensuring confidentiality of participant information.

19. A research objective should
    a. be broad and all-encompassing.
    b. include all possible research questions.
    c. be specific, measurable, and achievable.
    d. be written in passive voice.

20. Research can be broadly defined as
    a. a random collection of facts
    b. a systematic gathering and analysis of data for the advancement of knowledge
    c. a process of proving one's own opinion.
    d. None of the above

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(Descriptive)

Time : 2 hrs. 30 min. **Marks : 50**

[Answer question no.1 & any four (4) from the rest]

1. What do you mean by research? Write the possible motives during the research **3+7=10**

2. a. Explain the various Ethical views in Research. **5+5=10**
   b. Write in brief some statistical tools used in biological research.

3. Explain the formulation of research problems. **10**

4. **a.** Describe the research tools used in data analysis. **5+5=10**
   b. Discuss the key sections of research proposal.

5. Explain the different types of measurement scales used in research. **10**

6. Distinguish between Qualitative research and Quantitativee research. **10**

7. Write in brief the importance of sampling techniques in research. **10**

8. Explain the characteristics of a god sample. **10**

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