

**BACHELOR OF PHYSIOTHERAPY  
FIFTH SEMESTER  
RESEARCH METHODOLOGY  
BPT – 505 [REPEAT]  
[USE OMR SHEET FOR OBJECTIVE PART]**

**SET  
A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 min.

Marks: 20

***Choose the correct answer from the following:***

***1×20=20***

**( Objective )**

1. What type of variable ' T-Shirt Size' is?
  - a. Quantitative and Continuous
  - b. Qualitative and ordinal
  - c. Qualitative and nominal
  - d. None of these
2. Which of the following is a research objective?
  - a. Exploratory
  - b. Evaluative
  - c. Predictive
  - d. All of these
3. When to Write Research Objectives\_
  - a. At the beginning of a research project
  - b. To get the idea of research project
  - c. At the end of the research project
  - d. None of these
4. To ensure that research objectives are well-defined and achievable, one has to use the SMART criteria. The abbreviation of SMART is
  - a. Specialized Measurable, Achievable, Relevant, and Time-bound.
  - b. Specific, Manageable, Attainable, Reliable and Time-bound
  - c. Specific, Measurable, Achievable, Relevant, and Time-bound.
  - d. None of these
5. Measurement of the consistency of reliability is
  - a. Test retest
  - b. Parallel forms
  - c. Internal consistency
  - d. All of these
6. Which measure of the following is about the accuracy of a measure opt.
  - a. Validity
  - b. Reliability
  - c. Neutral
  - d. None of these
7. Which statement is correct in relating to research methodology
  - a. The research methodology consists of complete approach aligned towards the attainment of purpose.
  - b. The research methodology is nothing but the behaviour or tool, employed in selecting and building research technique.
  - c. Research methodology covers various investigation techniques
  - d. All of these

8. The reasons to conduct a **literature review** at the beginning of a research project:
- To familiarize yourself with the current state of knowledge on your topic
  - To ensure that you're not just repeating what others have already done
  - To identify gaps in knowledge and unresolved problems that your research can address
  - All of these
9. When a hypothesis has independent and dependent variables are more than two are known as
- Complex hypothesis
  - Alternative hypothesis
  - Empirical hypothesis
  - None of these
10. The source that index, abstract, organize, compile, or digest other sources in literature review is known as
- Primary source
  - Secondary
  - Tertiary sources
  - None of these
11. Which of the following is a non- probability sampling?
- Stratified random sampling
  - judgement sampling
  - Systematic sampling
  - None of these
12. The sampling, where the population is divided into strata (or subgroups) and a random sample is taken from each subgroup is known as
- Random sampling
  - Convenience sampling
  - Stratified random Sampling
  - None of these
13. Data which are mostly non-numerical and usually descriptive or nominal in nature is known as\_
- Quantitative
  - Qualitative
  - Mixed
  - None of these
14. The source that data has been collected from first-hand-experience is known as
- Primary source
  - Secondary source
  - Tertiary sources
  - None of these
15. The analysis which aims to make inferences or predictions about a larger population based on sample data is known as\_
- Descriptive analysis
  - Inferential analysis
  - Diagnostic analysis
  - None of these
16. A distribution which deals with more than two variables is known as
- Univariate
  - Bi-variate
  - Multivariate
  - None of these
17. If the two variables move in opposite direction, then the correlation between two variables is
- Positive
  - Negative
  - Both
  - None of these



18. When the value of Pearson's Correlation coefficient is -1 then the two variables are
  - a. Positive & highly correlated
  - b. Negative & moderately correlated
  - c. Positive & moderately correlated
  - d. Negative & highly correlated
19. Which one is the principle of sound research design
  - a. Identifies the problems
  - b. Reviews literature around the problem statement
  - c. Describes sources of data
  - d. All of these
20. A Research Design in which researcher examines the various variables while including numbers as well as statistics in a project to analyze its findings is known as
  - a. Qualitative research design
  - b. Experimental research design
  - c. Quantitative research design
  - d. None of these

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### ( Descriptive )

Time : 2 hrs. 30 min.

Marks : 50

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

1. a. What do you mean by Research Methodology and Research Methods. 4+6=10  
 b. Discuss five key points on significance of Research Methodology.
2. a. Discuss different key characteristics of research objective. 5+5=10  
 b. Write 5 objectives of the following research title:  
 "Assessment of the Efficacy of Manual Therapy Techniques in the Management of Chronic Low Back Pain in Adult Patients: A Randomized Clinical Trial"
3. What is research design? Discuss about Quantitative and Qualitative research design and their differences. 2+8=10
4. a. Discuss different sources of literature review. 8+2=10  
 b. Distinguish between academic research & literature review.

5. a. Discuss three different types of hypotheses. 6+4=10  
 b. Is it true that vitamin C has the ability to cure or prevent the common cold? Or is it just a myth? Set up a hypothesis for this with significance level 0.01 and P value 0.03. Give conclusion also.

6. Explain Simple Random Sampling, Systematic Sampling, Quota Sampling and Purposive sampling. 10

7. a. Give two examples of Positive Correlation and Negative Correlation. 5+5=10

- b. Find the correlation coefficient between height and weight of the following data and interpret the result.

Height (CM)	155	165	145	137	167	147
Weight (KG)	45	56	60	47	75	58

8. Write short notes on *any two* 5+5=10  
 a. Reliability vs validity in research  
 b. Steps followed in hypothesis testing  
 c. Importance of research Methodology  
 d. Convenience vs purposive sampling technique

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