



- a) To collect data  
c) To analyze data
- (ix) Which of the following is NOT a type of research design?  
a) Experimental  
c) Predictive
- (x) In experimental research, what is the independent variable?  
a) The variable being measured  
c) The outcome variable
- (xi) What does a longitudinal research design involve?  
a) Studying a single group at one point in time  
c) Studying a single group over an extended period
- (xii) Which of the following is a disadvantage of a cross-sectional research design?  
a) It is time-consuming  
c) It is expensive
- (xiii) What is a research hypothesis?  
a) A tentative prediction or explanation that can be tested  
c) A subjective opinion
- (xiv) What is random sampling in research design?  
a) Selecting participants based on a specific characteristic  
c) Selecting participants using a random process
- (xv) What is a pilot study in research design?  
a) A study conducted with airplane pilots  
c) A study conducted with young participants
- b) To plan and structure the study  
d) To draw conclusions
- b) Descriptive  
d) Subjective
- b) The variable that is manipulated  
d) The control variable
- b) Studying multiple groups at one point in time  
d) Studying multiple groups over an extended period
- b) It cannot establish cause-and-effect relationships  
d) It requires a large sample size
- b) A proven fact  
d) A random guess
- b) Selecting participants haphazardly  
d) Selecting participants from a specific location
- b) A small-scale study conducted before the main study  
d) A study conducted in a pilot phase of research

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Define Mann-Whitney U test. (3)
3. Define plagiarism in research and explain is it considered unethical? (3)
4. Define qualitative research. (3)
5. Define descriptive research. (3)
6. Discuss the advantages of cluster sampling in large-scale research studies. (3)

OR

- How should a researcher address potential limitations of their study in a research proposal? (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the process of data collection in experimental research. (5)
8. Discuss the concept of continuous data in research with example. (5)
9. Explain the concept of effect size and its relevance in determining the practical significance of research findings. (5)

10. Explain the concept of sampling distribution and its importance in inferential statistics. (5)
11. Describe the role of interviews in qualitative data collection. (5)
12. Discuss the significance of the correlation coefficient ( $r$ ) in correlation analysis and also mention the strength of correlation interpreted based on the value of  $r$ . (5)

**OR**

Describe the Chi-Square test for independence and explain the procedure of conducting the test. (5)

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