Unit I: Introduction to Research Methodology

Long Answer Questions

1. Define research methodology and explain its significance in academic research.
2. Discuss the various objectives of research.
3. Describe the different types of research with suitable examples.
4. Explain the research process step-by-step.
5. Differentiate between primary and secondary data with examples.
6. Describe the methods used for collection of primary data.
7. Explain the process of classification and tabulation of data.
8. Discuss the importance and methods of presenting data effectively.
9. What is the application of measures of central tendency in research?
10. Explain the concept of dispersion and its importance in data analysis.

Short Answer Questions

1. What is research methodology?
2. List any three types of research.
3. What is the meaning of primary data?
4. Define secondary data.
5. Name two methods of data collection.
6. What is tabulation of data?
7. Mention any two applications of central tendency measures.
8. What is dispersion in research?
9. Differentiate between classification and tabulation.
10. State the objectives of research.

Multiple Choice Questions

1. Research methodology primarily deals with:
   a) Data collection only
   b) Systematic procedure of research
   c) Hypothesis testing only
   d) Report writing only
   Answer: b) Systematic procedure of research
2. Primary data is:
   a) Collected for the first time
   b) Published data
   c) Data from journals
   d) Data available in books
   Answer: a) Collected for the first time
3. Which is NOT a type of research?
   a) Exploratory

b) Descriptive
c) Conclusive
d) Summative
Answer: d) Summative

4. Classification of data means:
   a) Presenting data in tables
   b) Grouping data into classes
   c) Calculating averages
   d) Interpreting results
   Answer: b) Grouping data into classes
5. Measure of central tendency includes:
   a) Mean, Median, Mode
   b) Variance and Standard deviation
   c) Range and Quartiles
   d) Regression and Correlation
   Answer: a) Mean, Median, Mode
6. Dispersion in research refers to:
   a) Central value of data
   b) Spread of data points
   c) Hypothesis testing
   d) Sample size
   Answer: b) Spread of data points
7. Secondary data is obtained from:
   a) Field surveys
   b) Official reports
   c) Interviews
   d) Experiments
   Answer: b) Official reports
8. Tabulation is useful for:
   a) Grouping data
   b) Summarizing data
   c) Analyzing data
   d) Collecting data
   Answer: b) Summarizing data
9. Research objectives define:
   a) What to achieve in research
   b) How data is collected
   c) Sample size
   d) Data presentation method
   Answer: a) What to achieve in research
10. Presentation of data is important for:
    a) Easy understanding
    b) Data collection
    c) Hypothesis formulation
    d) Sampling design
    Answer: a) Easy understanding

Unit II: Research Designs, Sampling Design, Measurement and Scaling Techniques

Long Answer Questions

1. Define research design and explain its importance in research.
2. Discuss the different types of research designs with examples.
3. Explain the concept and types of sampling design.
4. Describe probability and non-probability sampling techniques.
5. Discuss the principles and importance of measurement in research.
6. Explain different types of scales used in research measurement.
7. Describe the Likert scale and its applications.
8. What are the criteria for a good measurement scale?
9. Explain the process of sample size determination.
10. Discuss the challenges faced in sampling and measurement.

Short Answer Questions

1. What is research design?
2. Name two types of sampling techniques.
3. Define probability sampling.
4. What is non-probability sampling?
5. Mention any two measurement scales.
6. Define scaling in research.
7. What is a nominal scale?
8. State one feature of ordinal scale.
9. What is the purpose of sampling?
10. Name any one scaling technique.

Multiple Choice Questions

1. Research design is:
   a) Blueprint of research
   b) Data collection method
   c) Sample selection only
   d) Data analysis technique
   Answer: a) Blueprint of research
2. Probability sampling ensures:
   a) Equal chance of selection
   b) Selective sampling
   c) Non-random selection

d) Convenience sampling
Answer: a) Equal chance of selection

3. Non-probability sampling includes:
   a) Simple random sampling
   b) Stratified sampling
   c) Purposive sampling
   d) Systematic sampling
   Answer: c) Purposive sampling
4. Nominal scale is used for:
   a) Ranking data
   b) Naming or categorizing data
   c) Measuring intensity
   d) Ordering data
   Answer: b) Naming or categorizing data
5. Likert scale measures:
   a) Frequency
   b) Attitudes and opinions
   c) Time intervals
   d) Sizes
   Answer: b) Attitudes and opinions
6. Stratified sampling is an example of:
   a) Non-probability sampling
   b) Probability sampling
   c) Convenience sampling
   d) Judgment sampling
   Answer: b) Probability sampling
7. Measurement in research is important to:
   a) Collect data only
   b) Quantify variables
   c) Tabulate data
   d) Write reports
   Answer: b) Quantify variables
8. Ordinal scale represents data in:
   a) Categories without order
   b) Ordered categories
   c) Equal intervals
   d) Nominal data
   Answer: b) Ordered categories
9. Sampling helps to:
   a) Reduce data
   b) Save time and resources
   c) Increase population
   d) Avoid analysis
   Answer: b) Save time and resources
10. The purpose of scaling is to:
    a) Classify variables

b) Measure intensity or quantity
c) Collect data
d) Report writing
Answer: b) Measure intensity or quantity

Unit III: Testing of Hypothesis

Long Answer Questions

1. Define hypothesis and explain its role in research.
2. Distinguish between parametric and non-parametric tests of hypothesis.
3. Explain the steps involved in hypothesis testing.
4. Describe the characteristics and assumptions of parametric tests.
5. Discuss common parametric tests and their applications.
6. Explain non-parametric tests and when they are used.
7. Describe the Chi-square test and its application.
8. Explain the concept of level of significance and p-value in hypothesis testing.
9. What is the importance of sample size in hypothesis testing?
10. Discuss errors in hypothesis testing (Type I and Type II errors).

Short Answer Questions

1. What is a hypothesis?
2. Define parametric tests.
3. Define non-parametric tests.
4. What is a null hypothesis?
5. What is an alternative hypothesis?
6. Name any two parametric tests.
7. Name any two non-parametric tests.
8. What is a Type I error?
9. What is a Type II error?
10. What is significance level?

Multiple Choice Questions

1. Hypothesis testing is used to:
   a) Prove a theory correct
   b) Make decisions about population parameters
   c) Collect data
   d) Write reports
   Answer: b) Make decisions about population parameters
2. Parametric tests assume:
   a) No assumptions

b) Data follows a known distribution
c) Small samples only
d) Nominal data
Answer: b) Data follows a known distribution

3. Non-parametric tests are used when:
   a) Data is normally distributed
   b) Data does not follow any specific distribution
   c) Samples are large
   d) Data is interval
   Answer: b) Data does not follow any specific distribution
4. The null hypothesis states:
   a) There is an effect
   b) No effect or difference exists
   c) Hypothesis is true
   d) Alternative is true
   Answer: b) No effect or difference exists
5. The p-value indicates:
   a) Probability of the null being true
   b) Probability of observing data if null is true
   c) Sample size
   d) Type II error
   Answer: b) Probability of observing data if null is true
6. Chi-square test is a:
   a) Parametric test
   b) Non-parametric test
   c) Sampling method
   d) Data collection technique
   Answer: b) Non-parametric test
7. Type I error occurs when:
   a) Null hypothesis is true but rejected
   b) Null hypothesis is false but accepted
   c) Both hypotheses true
   d) Both hypotheses false
   Answer: a) Null hypothesis is true but rejected
8. Level of significance is:
   a) Probability of Type I error
   b) Probability of Type II error
   c) Sample size
   d) Effect size
   Answer: a) Probability of Type I error
9. Which test is used for comparing means of two groups?
   a) Chi-square test
   b) t-test
   c) ANOVA
   d) Regression
   Answer: b) t-test

10. A large sample size generally:
    a) Increases error
    b) Reduces error
    c) Has no effect
    d) Affects only qualitative data
    Answer: b) Reduces error

Unit IV: Analysis of Variance (ANOVA)

Long Answer Questions

1. Define Analysis of Variance (ANOVA) and explain its purpose.
2. Discuss the basic principles and assumptions of ANOVA.
3. Explain the difference between one-way and two-way ANOVA.
4. Describe the steps involved in conducting a one-way ANOVA test.
5. How is the F-ratio calculated and interpreted in ANOVA?
6. What are the sources of variation in ANOVA?
7. Explain the significance of interaction effects in two-way ANOVA.
8. Discuss the applications of ANOVA in business research.
9. How does ANOVA differ from t-test?
10. Describe the limitations of ANOVA.

Short Answer Questions

1. What is ANOVA?
2. What is a one-way ANOVA?
3. What is a two-way ANOVA?
4. Define F-ratio in ANOVA.
5. Name one assumption of ANOVA.
6. What is interaction effect in two-way ANOVA?
7. When is ANOVA used instead of t-test
