

S.S.R. DEGREE COLLEGE, NIZAMABAD (Autonomous)

II SEMESTER INTERNAL ASSESSMENT-I EXAMINATIONS

RESEARCH METHODOLOGY

■ Multiple Choice Questions (20)

1. The first step in the research process is:

- a. Data collection
- b. Identifying the problem
- c. Hypothesis testing
- d. Report writing

Answer: b

2. A randomized controlled trial (RCT) is classified as:

- a. Observational study
- b. Experimental study
- c. Case study
- d. Cross-sectional study

Answer: b

3. The null hypothesis (H_0) usually states:

- a. There is a significant difference
- b. There is no significant difference
- c. The research is valid
- d. The sample is biased

Answer: b

4. Which sampling method ensures equal chance for every subject?

- a. Purposive sampling
- b. Random sampling
- c. Convenience sampling

d. Snowball sampling

Answer: b

5. In nutrition surveys, 24-hour dietary recall is:

a. Qualitative method

b. Quantitative method

c. Experimental method

d. Case-control method

Answer: b

6. The p-value in statistical testing indicates:

a. Probability of hypothesis being true

b. Probability of results occurring by chance

c. Strength of sampling method

d. Reliability of instruments

Answer: b

7. Which type of research explores new ideas without testing hypotheses?

a. Descriptive

b. Exploratory

c. Analytical

d. Experimental

Answer: b

8. A cohort study follows participants:

a. Backward in time

b. Forward in time

c. At one point in time

d. Without time consideration

Answer: b

9. Which tool is commonly used to measure nutritional status?

a. Stadiometer

b. Questionnaire

c. Food frequency chart

- d. All of the above

Answer: d

10. Literature review primarily helps to:

- a. Collect primary data
- b. Avoid duplication of work
- c. Test hypotheses
- d. Write references only

Answer: b

11. The main purpose of sampling in research is:

- a. Increase population size
- b. Reduce bias
- c. Represent population with fewer subjects
- d. Avoid hypothesis testing

Answer: c

12. Which is a probability sampling method?

- a. Convenience sampling
- b. Purposive sampling
- c. Simple random sampling
- d. Snowball sampling

Answer: c

13. In stratified random sampling, the population is divided into:

- a. Equal groups
- b. Homogeneous subgroups
- c. Random clusters
- d. Convenience groups

Answer: b

14. Cluster sampling is most useful when:

- a. Population is small and homogeneous
- b. Population is large and scattered
- c. Only qualitative data is needed

d. Hypothesis is not defined

Answer: b

15. Which sampling method is most prone to bias?

a. Systematic sampling

b. Convenience sampling

c. Stratified sampling

d. Random sampling

Answer: b

16. In systematic sampling, subjects are selected:

a. Randomly from clusters

b. At fixed intervals from a list

c. Based on researcher's judgment

d. Only from homogeneous groups

Answer: b

17. Purposive sampling is commonly used in:

a. Clinical trials

b. Qualitative research

c. Randomized surveys

d. Nutritional epidemiology

Answer: b

18. The sample frame refers to:

a. The entire population

b. The list of all sampling units

c. The selected sample only

d. The hypothesis statement

Answer: b

19. Which sampling design ensures each unit has equal probability of selection?

a. Stratified sampling

b. Cluster sampling

c. Simple random sampling

- d. Purposive sampling

Answer: c

20. In nutrition surveys, multi-stage sampling is often used because:

- a. It reduces cost and time
- b. It eliminates bias completely
- c. It avoids hypothesis testing
- d. It requires no sample frame

Answer: a

 **Fill in the Blank Questions (20)**

1. The process of systematic investigation to establish facts is called _____.

Answer: Research

2. In nutrition research, BMI is calculated as weight (kg) divided by _____.

Answer: Height in meters squared (m²)

3. A study that compares individuals with a disease to those without is called a _____ study.

Answer: Case-control

4. The variable that is manipulated in an experiment is called the _____ variable.

Answer: Independent

5. The gold standard for testing cause-effect relationships in nutrition is _____.

Answer: Randomized Controlled Trial (RCT)

6. The sample size in research is determined to reduce _____ error.

Answer: Sampling

7. In dietary assessment, the Food Frequency Questionnaire (FFQ) is used to measure _____ intake patterns.

Answer: Long-term

8. The confidence interval (CI) provides a range within which the _____ is expected to lie.

Answer: True population parameter

9. The process of converting raw data into meaningful information is called _____.

Answer: Data analysis

10. In nutrition research, anthropometry refers to the measurement of _____.

Answer: Human body dimensions

11. The subset of the population selected for study is called _____.
Answer: Sample
12. The complete group from which a sample is drawn is called _____.
Answer: Population
13. In nutrition research, random sampling helps to reduce _____ bias.
Answer: Selection
14. Dividing the population into strata and sampling from each is called _____ sampling.
Answer: Stratified
15. Selecting every 10th household in a nutrition survey is an example of _____ sampling.
Answer: Systematic
16. Sampling based on researcher's judgment is called _____ sampling.
Answer: Purposive
17. When the population is scattered geographically, researchers often use _____ sampling.
Answer: Cluster
18. The list of all elements in the population is known as the _____.
Answer: Sampling frame
19. In multi-stage sampling, selection is done in _____ stages.
Answer: Two or more
20. The main advantage of probability sampling is that it allows _____ of results to the population.
Answer: Generalization

III. Answer the following questions

- 1. Merits and Demerits of scientific research.**
- 2. Define RCT, Design and Ethics of it**
- 3. Research Abstract**
- 4. Steps in sampling design**
- 5. Sample size and its determination**