



**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DIPLOMA IN HUMAN NUTRITION AND  
DIETETICS**

**HNDS 0391: RESEARCH METHODS**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY 18/12/2024**

**8.30 A.M – 10.30 A.M**

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**INSTRUCTIONS:**

Answer **ALL** questions

- Do not write anything on the question paper
- No use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely

**SECTION A: MULTIPLE CHOICE QUESTIONS (20 MARKS)**

1. What is the primary purpose of research?
  - A. To make decisions
  - B. To discover new knowledge
  - C. To confirm previous findings
  - D. To support personal opinions
2. Which of the following is a characteristic of qualitative research?
  - A. Use of large sample sizes
  - B. Use of statistical analysis
  - C. Focus on numerical data
  - D. Emphasis on understanding human experiences
3. A research hypothesis is:
  - A. A guess without evidence
  - B. A prediction based on existing theory or knowledge
  - C. Always correct
  - D. The final conclusion of the research
4. Which of the following is a type of non-experimental research?

- A. Survey
  - B. Randomized controlled trial
  - C. Quasi-experiment
  - D. Double-blind study
5. What does the term "random sampling" refer to?
- A. Sampling only a select group of people
  - B. Every individual in the population has an equal chance of being selected
  - C. Sampling the first people encountered
  - D. Selecting individuals based on certain characteristics
6. In an experimental study, the variable that is manipulated is called:
- A. Independent variable
  - B. Dependent variable
  - C. Control variable
  - D. Extraneous variable
7. Which of the following best describes a case study?
- A. A study involving large sample sizes
  - B. An in-depth examination of a single individual or group
  - C. An experiment involving control and experimental groups
  - D. A statistical comparison of two groups
8. What is the main goal of a literature review in research?
- A. To collect data
  - B. To conduct experiments
  - C. To summarize previous research findings
  - D. To prove a hypothesis
9. A correlation between two variables indicates:
- A. That one variable causes the other
  - B. A relationship between the two variables
  - C. No relationship exists between the variables
  - D. The difference between two groups
10. Which research design allows the researcher to make causal inferences?
- A. Correlational design
  - B. Experimental design
  - C. Observational design
  - D. Descriptive design

11. What is a longitudinal study?
  - A. A study conducted at one point in time
  - B. A study conducted over a long period of time
  - C. A study comparing different groups
  - D. A study focusing on short-term effects
12. The null hypothesis states that:
  - A. There is a significant difference between groups
  - B. There is no relationship between variables
  - C. The research hypothesis is true
  - D. The experiment was conducted correctly
13. Which of the following is an example of qualitative data?
  - A. The height of individuals in centimeters
  - B. Responses to an open-ended survey question
  - C. The number of hours spent studying
  - D. The temperature in a room
14. A measure is considered reliable if:
  - A. It measures what it is supposed to measure
  - B. It yields consistent results over time
  - C. It produces different results every time
  - D. It is influenced by external factors
15. What is a double-blind experiment?
  - A. Both the participants and researchers are aware of the conditions
  - B. Neither the participants nor the researchers know who is in the experimental or control group
  - C. Only the participants know the conditions
  - D. Only the researchers know the conditions
16. Which of the following best describes quantitative research?
  - A. It is focused on numerical data and statistical analysis
  - B. It involves interviews and thematic analysis
  - C. It seeks to explore complex social phenomena
  - D. It focuses on case studies and individual experiences
17. What is the purpose of a control group in an experiment?
  - A. To ensure the experiment has no biases
  - B. To act as a standard of comparison

- C. To manipulate the independent variable
  - D. To receive the experimental treatment
18. What is meant by "operationalizing a variable"?
- A. Conducting an experiment
  - B. Defining how a variable will be measured or manipulated
  - C. Changing the outcome of the variable
  - D. Removing the variable from the study
19. Which of the following is an ethical concern in research?
- A. Large sample size
  - B. Informed consent
  - C. High statistical power
  - D. Small sample size
20. Which term refers to the accuracy of a measurement?
- A. Validity
  - B. Reliability
  - C. Precision
  - D. Generalizability

**SECTION B: SHORT ANSWER QUESTIONS (20 MARKS)**

1. Define the following terms as used in research
- a) Variable (2 marks)
  - b) Theory (2 marks)
2. Highlight four components of a research proposal (4 marks)
3. Distinguish between applied research and quantitative research (4 marks)
4. Highlight any four characteristics of a hypothesis (4 marks)
5. Discuss any four ethical standards to be considered in research (4 marks)

**SECTION C: LONG ANSWER QUESTIONS (30 MARKS)**

1. A team of nutrition researchers has been dispatched to go and find out the rising cases of diabetes type 2. Discuss any four purposes of a research (10 marks)
2. Describe (4) the types of study designs available in research (10 marks)
3. You have been sent to go and collect data in a community where cases of malnutrition have been reported. Discuss any four sampling techniques used in research (10 marks)

