

BSC NURSING Y2S3

NNU 3234: RESEARCH METHODOLOGY

TIME 2 HOURS

INSTRUCTIONS: ANSWER ALL QUESTIONS

SECTION A (20 MARKS)

1. The first step of research is:
 - a) Selecting a problem
 - b) Searching a problem
 - c) Finding a problem
 - d) Identifying a problem
2. Why is literature review an important aspect of proposal writing?
 - a) To make sure you have a long list of references
 - b) Because without it, you could never reach the required word-count
 - c) To find out what is already known about your area of interest
 - d) To help in your general studying
3. When one examines the entire population instead of a subgroup of the population, this is called?
 - a) Sampling
 - b) Census
 - c) Population
 - d) Bias
4. A complete list of all the sampling units is called?
 - a) Sampling design
 - b) Sampling frame
 - c) Population frame
 - d) A cluster
5. What is the main aim of interdisciplinary research?
 - a) To over simplify the problem of research
 - b) To bring out the holistic approach to research
 - c) To create a new trend in research methodology
 - d) To reduce the emphasis on a single subject in the research domain
6. How can you judge the depth of any research?
 - a) By research title
 - b) By research duration
 - c) By research objectives
 - d) By total expenditure on research
7. Which of the following is a discrete variable?
 - a) Age
 - b) Nationality
 - c) Test score
 - d) Income
8. Which one of the following study types is an intervention study?
 - a) Cross-sectional study
 - b) Randomised controlled trial
 - c) Cohort study

- d) Case-control study
9. The main objective of study is to acquire knowledge.
- a) Exploratory
 - b) Descriptive
 - c) Case-Control
 - d) Descriptive
10. A null hypothesis is:
- a) When there is no difference between the variables
 - b) The same as research hypothesis
 - c) Subjective in nature
 - d) When there is difference between the variables
11. The principle of 'beneficence' refers to the ethical obligation to:
- a) Treat each person in a manner that is morally right
 - b) Protect the rights of vulnerable persons
 - c) Carry out research in a competent, objective and honest manner
 - d) Maximise benefits of the research and minimise harm
12. Why is it important that personal data about research participants are kept within secure, confidential records?
- a) So that the participants cannot find out what has been written about them
 - b) So that individuals, places or organizations cannot be harmed through identification or disclosure of personal information
 - c) So that government officials, teachers and other people in authority can have easy access to the data
 - d) To enable the researcher to track down individuals and find out more about their lives
13. In an experimental design, the dependent variable is:
- a) The one that is not manipulated and in which any changes are observed
 - b) The one that is manipulated in order to observe any effects on the other
 - c) A measure of the extent to which personal values affect research
 - d) An ambiguous concept whose meaning depends on how it is defined.
14. Closed ended questions are those that:
- a) Have a fixed range of possible answers
 - b) Prevent respondents from allocating themselves to a category
 - c) Encourage detailed, elaborate responses
 - d) Relate to the basic demographic characteristics of respondents
15. What does the longitudinal research approach deal with?
- a) Long-term research
 - b) Short-term research
 - c) Horizontal research
 - d) Experimental research
16. A researcher measured the variable "feelings toward national health care insurance" with categories, "strongly agree", "agree", "indifferent", "disagree", and "strongly disagree". This researcher was using the measurement level:
- a) Nominal
 - b) Interval

- c) Ratio
 - d) Ordinal
17. Which of the following is a nominal variable?
- a) Blood type
 - b) Age
 - c) Marital status
 - d) Height
18. In systematic sampling, population is 200 and selected sample size is 50 then sampling interval is:
- a) 250
 - b) 0.25
 - c) 4
 - d) 40
19. The part where credit is given to any author of previous work is called?
- a) Introduction
 - b) Conclusion
 - c) References
 - d) Publication
20. Questionnaire is a:
- a) Research method
 - b) Measurement technique
 - c) Tool for data collection
 - d) Data analysis technique

SECTION B: SHORT ANSWER QUESTIONS (30 MARKS)

1. Differentiate between the following terms: (4 marks)
 - i. Sample and Population
 - ii. Dependent Variable and Confounding Variable
 - iii. Basic research and Applied research
 - iv. Experimental and Control Groups
2. The role of nurses in the provision nursing care is more substantial in public hospitals than private hospitals. Using this statement, state the Null and Alternative hypothesis in the expected relationship between nursing care and the type of hospital (2 marks)
3. With the help of suitable examples, explain two types of:
 - i. Random sampling techniques/methods (2 marks)
 - ii. Non-random sampling techniques/methods (2 marks)

4. State the 2 pros and 2 cons of the following data collection techniques in research: (4 marks)
- Face-to-face interview
 - Observation
5. Write a short note on “Significance of Research” (3 marks)
6. Before selecting his study participants, a researcher meets with a large group of adults and their children. He tells them about his research objectives. What ethical consideration should be put in place when the parents as well as the children agree to participate in the research? (5 marks)
7. A researcher wants to conduct a study on mental wellness of students at Meru University with a population of 5,000 undergraduate students. Calculate the sample size required under the following conditions; (4 Marks)

Formula;
$$n = \frac{Z^2 \times pq}{e^2}$$

Prevalence of mental health related issues (p) = 35%

Confidence interval = 95%

Z value at 95% interval = 1.96

E = error based on confidence interval

8. State four characteristics of a suitable research topic? (4 marks)

SECTION C: LONG ANSWER QUESTIONS (20 MARKS)

- Using a flow chart, show the research process highlighting the key areas. (10 Marks)
- Describe 4 research instruments that can be used for data collections (4 marks)
- State 6 ethical rules that should be considered when conducting a research (6 marks)