



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL LABORATOR SCIENCES

AML 2212 : RESEARCH METHODS

END OF SEMESTER EXAMINATION

SERIES: AUGUST 2019

TIME: 2 HOURS

DATE: Pick Date Aug 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt ALL questions.

Circle the correct answer in section A.

Section A (40 MARKS)

1. Which of the following is not a type of nonrandom sampling?
 - a. Cluster sampling
 - b. Convenience sampling
 - c. Quota sampling
 - d. Purposive sampling
2. Which of the following verbs should not be used when stating objectives?
 - a. to determine
 - b. to compare
 - c. to verify
 - d. to appreciate
3. Which of the following is not an example of a nominal scale?
 - a. sex
 - b. divorced
 - c. single
 - d. grade III disease

4.refers to keeping our promises and avoiding negligence with information from participants in a research.
 - a. Confidentiality
 - b. Fidelity
 - c. Autonomy
 - d. Veracity

5. Which of the following is not an ethical guideline for conducting research with humans?
 - a. Getting informed consent of the participant
 - b. Telling participants they must continue until the study has been completed
 - c. keeping participants' identity anonymous
 - d. Telling participants they are free to withdraw at any time

6. What is the median of the following set of scores...18, 6, 12, 10, 14?
 - a. 10
 - b. 14
 - c. 18
 - d. 12

7. Which measure of central tendency takes into account the magnitude of scores?
 - a. Mean
 - b. Median
 - c. Mode
 - d. Range

8. Computer database searches can be done
 - a. With a computer CD-ROM drive
 - b. At the library
 - c. Online
 - d. All of the above

9. Which of the following types of sampling involves the researcher determining the appropriate sample sizes for the groups identified as important, and then taking convenience samples from those groups?
 - a. Proportional stratified sampling
 - b. Quota sampling
 - c. One-stage cluster sampling
 - d. Two-stage cluster sampling

10. Which of the following is not part of data processing?
 - a. categorizing
 - b. coding
 - c. preparing master sheets
 - d. preparing questionnaires

11. Which of the following is not included when describing the study population in a proposal?
 - a. Describe the hypothesis
 - b. Mapping of area
 - c. Showing accessibility of area
 - d. Cooperation by community area

12. Which of the following is not included in the preliminary pages of a research report?
 - a. Literature review
 - b. Table of contents
 - c. Acknowledgements
 - d. Abstract

13. Which of the following is not an example of type of measurement for medical history?
 - a. Physical findings
 - b. Diagnosis
 - c. Medication
 - d. Level of education

14. A.....is a subset of the population
 - a. Parameter
 - b. Statistic
 - c. Sample
 - d. data

15.is an ethical value where all subjects in any research project are always told the truth
 - a. Confidentiality
 - b. Fidelity
 - c. Autonomy
 - d. veracity

16. What must Research participants give before they can participate in a study?
 - a. maintenance fee
 - b. Guidelines
 - c. Informed consent
 - d. Private information

17. Which correlation is the strongest?
 - a. +1.0
 - b. -0.95
 - c. +0.95
 - d. -0.01

18. Research on the benefit of chloroquine to prevent malaria used only male subjects in the sample. Both men and women are given this advice. This problem is called.....
 - a. Courtesy bias
 - b. Gender bias
 - c. Cultural bias
 - d. Age bias

19. If a test was generally very well set with majority of students with a few passing very well and others passing averagely then the distribution of scores would be ____.
- Positively skewed
 - Normal
 - Negatively skewed
 - Not skewed at all
20. The ____ is the value you calculate when you want the arithmetic average.
- Mean
 - Median
 - Mode
 - All of the above
21. Students who do better in high school tend to do better in college. This is an example of a
- Negative correlation.
 - Zero correlation.
 - Positive correlation.
 - Perfect correlation.
22. A psychologist watches the rapid eye movements of sleeping subjects and wakes them to find they report that they were dreaming. She concludes that dreams are linked to rapid eye movements. This conclusion is based on
- pure speculation
 - direct observation
 - deduction from direct observation
 - prior prediction
23. Which of the following is true regarding a research proposal?
- Should be detailed
 - Should be given to others for review and comments
 - Sets out the rational for a research study
 - All of the above
24. Which of the following is true about an ordinal scale?
- The simplest form of measurement
 - A rank-order scale of measurement
 - A scale with equal intervals between adjacent numbers
 - A categorical scale
25. People who are available, volunteer, or can be easily recruited are used in the sampling method called ____.
- Simple random sampling
 - Cluster sampling
 - Systematic sampling
 - Convenience sampling

26. In an experiment to find out if taking ginseng increases IQ scores, the IQ scores would be the.....
- independent variable.
 - a control variable.
 - an extraneous variable.
 - the dependent variable.
27. In which part of the proposal are research participants discussed in detail?
- Literature review
 - Appendix
 - abstract
 - Methods
28. What must Research participants give before they can participate in a study?
- Guidelines
 - A commitment
 - Informed consent
 - Private information
29. The act of publishing the same data and results in more than one journal or publication refers to which of the following professional issues:
- Partial publication
 - Deception
 - Fallacy
 - Duplicate publication
30. The process of drawing a sample from a population is known as _____.
- Sampling
 - Census
 - Survey research
 - None of the above
31. What is it called when the participants are not revealed to anyone but researcher and staff?
- Confidentiality
 - Anonymity
 - Ethics
 - Discretion.
32. Which is the process of gathering evidence supporting inferences based test scores?
- Validation
 - Validity
 - Reliability
 - Prediction
33. A _____ is a numerical characteristic of a sample and a _____ is a numerical characteristic of a population.
- Sample, population
 - Population, sample
 - Statistic, parameter
 - Parameter, statistic

34. A teacher believes that one group of children is very bright and that a second is below average in ability. Actually, the groups are identical, but the first group progresses more rapidly than the second. This demonstrates
- the self-fulfilling prophecy.
 - the placebo effect in a natural experiment.
 - observer bias in naturalistic observation.
 - the ethical problems of field experiments.
35. A condition or characteristic that can take on different values or categories is called
- constant
 - a descriptive relationship
 - variable
 - tally
36. ___ research occurs when the researcher manipulates the independent variable.
- sampling
 - experimental research
 - ethnography
 - correlational research
37. Which of the following includes examples of quantitative variables?
- age, temperature, income, height
 - grade point average, anxiety level, reading performance
 - gender, religion, ethnic group
 - both a and b
38. _____ is a set of elements taken from a larger population according to certain rules.
- Sample
 - Population
 - Statistic
 - Element
39. Which of the following statements is true of a theory?
- it most simply means “explanation”
 - it answers the “how” and “why” questions
 - it can be a well-developed explanatory system
 - all of the above are correct
40. Which scale is the simplest form of measurement?
- Nominal
 - Ordinal
 - Interval
 - Ratio

Section B (60 MARKS)

41. Give a proposal outline (20 marks)
42. a. With relevant examples describe the scales of measurement (10 marks)
b. Describe any five features of a health system research (10marks)
43. Describe any TEN sources of information that can be utilised while preparing a proposal (20 marks)