PP1

TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN MEDICAL SCIENCES

AML 2212 : RESEARCH METHODS

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date May 2016

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. _____ is a set of elements taken from a larger population according to certain rules.

A. Sample
B. Population
C. Statistic
D. Element

2. Which of the following statements is true of a theory?

A. it most simply means “explanation”
B. it answers the “how” and “why” questions
C. it can be a well-developed explanatory system
D. all of the above are correct

3. Which scale is the simplest form of measurement?

A. Nominal
B. Ordinal
C. Interval
D. Ratio

4. Reliability is most simply known as which of the following?
A. Consistency or stability
B. Appropriateness of interpretations on the basis of test scores
C. Ways in which people are the same
D. A rank order of participants on some characteristic

5. 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
A. pure speculation
B. direct observation
C. deduction from direct observation
D. prior prediction

6. students who do better in high school tend to do better in college. This is an example of a ……
A. negative correlation.
B. zero correlation.
C. positive correlation.
D. perfect correlation.

7. Basic ethical guidelines for psychological researchers include.....
A. harming the subjects when necessary.
B. ensuring that participation is involuntary
C. providing results and interpretations to participants
D. minimizing confidentiality.

8. A simple experiment has two groups of subjects called……..
A. the dependent group and the independent group.
B. the extraneous group and the independent group.
C. the before group and the after group.
D. the control group and the experimental group.

9. I work at a university, and my research is designed to be of immediate use in the classroom. My research would be called……

A. basic.
B. applied.
C. Impractical.
D. ethical.

10. In terms of critical thinking and testing, results should……..

A. be incredible.
B. be repeatable.
C. be subjective.
D. be meta-analytical.

11. Responding to a substance like a sugar pill as if it were a drug is called ……
A. the placebo effect.
B. an extraneous factor.
C. variability.
D. psychosomatic illness.

12. A scientific explanation that remains tentative until it has been adequately tested is called a(n)……..

A. theory.
B. law.
C. hypothesis.
D. experiment.

13. ……. Is an ability to evaluate, compare, analyse, critique and synthesize information.

A. Critical thinking
B. Transductive
C. Deductive
D. Creative

14. In a study of effects of alcohol on driving ability, the control group should be given……..

A. A high dosage of alcohol
B. One half the dosage given experimental group
C. A driving test before and after drinking alcohol
D. Same volume as the alcohol given

15. A graph that uses vertical bars to represent data is called ……..

A. Line graph
B. Bar graph
C. Scatter plot
D. Vertical graph

16. Which correlation is the strongest?

A. +1.0
B. -0.95
C. +0.95
D. -0.01

17. 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

18. Ideally the research participant's identity is not known to the researcher. This is called……

A. Anonymity
B. Confidentiality
C. Deception
D. Desensitizing

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 _____.

A. Positively skewed
B. Normal
C. Negatively skewed
D. Not skewed at all

20. The _____ is the value you calculate when you want the arithmetic average.

A. Mean
B. Median
C. Mode
D. All of the above

21. A _____ is a numerical characteristic of a sample and a _____ is a numerical characteristic of a population.

A. Sample, population
B. Population, sample
C. Statistic, parameter

D. Parameter, statistic

22.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

A. the self-fulfilling prophecy.
B. the placebo effect in a natural experiment.
C. observer bias in naturalistic observation.
D. the ethical problems of field experiments.

23. A condition or characteristic that can take on different values or categories is called ……..

A. constant
B. a variable
C. tally
D. a descriptive relationship

24. _____ research occurs when the researcher manipulates the independent variable.

A. sampling
B. experimental research
C. ethnography
D. correlational research

25. Which of the following includes examples of quantitative variables?

A. age, temperature, income, height

B. grade point average, anxiety level, reading performance

C. gender, religion, ethnic group

D. both a and b

26. In research, something that does <u>not</u> "vary" is called a _____.

A. variable

B. method

C. constant

D. control group

27. The correlation between intelligence test scores and grades is:

a. Positive
b. Negative
c. Perfect
d. They are not correlated

28. The feasibility of a research study should be considered in light of:

a. Cost and time required to conduct the study
b. Skills required of the researcher
c. Potential ethical concerns
d. All of the above

29. The research participants are described in detail in which section of the research plan?
a. Introduction
b. Method
c. Data analysis
d. Discussion

30. According to your text, which of the following is not a source of research ideas?
a. Everyday life
b. Practical issues
c. Past research
d All of the above ARE sources of research ideas

31. Making variables measurable is called
a. Citation
b. operationalization
c. Quasi
d. Statistics

32. Which of the following verbs can be used when stating objectives?

a. to understand
b. to study
c. to believe
d. To establish

33. The kind of variable that strengthens or weakens the relationship between a problem and its cause is ……variable

a. Numerical
b. Confounding
c. Qualitative
d. quantitative

34. The list of units from which the sample is to be selected is called

a. Sampling frame

b. target population

c. Sample

d. study population

35. Which kind of sampling has the Individuals chosen at regular intervals (for example, every 5th, 10th, etc.)

a. simple sampling
b. random
c. systematic
d. non probability

36. Which of the following is not utilised when selecting assistants for data collection?

a. from the same educational level;
b. knowledgeable concerning the topic and local conditions;
c. not the object of study themselves; and
d. biased concerning the topic

37. Which of the following is not a possible cause of bias caused by instruments used?

a. Open ended questions without guided for asking them
b. Fixed questions from little known subjects
c. Standardized weighing scales
d. Leading questions

38. The ethical principle of ……..is when the researcher does not inflict bodily harm to individuals

a. Non -Maleficence
b. Beneficence
c. Autonomy
d. Confidentiality

39. ……..refers to keeping our promises and avoiding negligence with information from participants in a research.

a. Confidentiality
b. Fidelity
c. Autonomy
d. Veracity

40. In research, something that does <u>not</u> "vary" is called a _____.

a. variable
b. method
c. constant
d. control group

SECTION B (60 MARKS)

1. Describe any TEN sources of information that can be utilised while preparing a proposal (20marks)

2. Differentiate the different types of scientific studies giving relevant examples (20mks)

3. a. Describe any five features of a health system research (10mks)

b. Describe how defective instruments may bring about bias in data collection (10 marks)