



# TECHNICAL UNIVERSITY OF MOMBASA

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FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF MEDICAL SCIENCES

**UNIVERSITY EXAMINATION FOR:**

**BMLS**

**AML4311: RESEARCH METHODS**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE:** Pick Date Select Month Pick Year

## **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.**

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## Section A

1. Which of the following is not a component of the title page?
  - a) The study objective
  - b) The names of the authors with their titles and positions, the institution
  - c) The month and year of submission of the proposal
  - d) A challenging statement or question
  - e)
2. Which of the following statements is true about the statement of research problem?
  - a) Where to use the results
  - b) Background and definition of the problem of the study
  - c) who to make use of the results

- d) what for the result would be used
  - e) None of the above
3. Which of the following is not part of the appendices?
- a) Data collection and coding forms
  - b) Dummy tables for data presentation
  - c) References
  - d) Letters of support (cooperation)
  - e) Ethical clearance
4. The manual for data collectors should have instructions concerning the following EXCEPT?
- a) Purpose of the study
  - b) Role of the data collectors
  - c) The way data collectors should introduce themselves to respondents
  - d) Interviewing techniques
  - e) None of the above
5. Which of the following is not included in Data analysis
- a) Management of dropouts
  - b) Inclusion/ exclusion criteria
  - c) Frequencies, rates, other parameters
  - d) Statistical programs and tests to be used
  - e) Data presentation (dummy tables to be appended)
6. Which of the following is not a bias in cohort studies?
- a) Loss to follow up
  - b) Recall bias
  - c) Analytic bias
  - d) Selection bias
  - e) Bias due to unresponsiveness
7. The following are disadvantages of prospective cohort studies EXCEPT?
- a) Exposure
  - b) Study results are limited
  - c) Captive groups
  - d) Time consuming
  - e) `Expensive
8. The healthy person effect is common in which of the following studies?
- a) Randomized trials
  - b) Case-control
  - c) Cohort

- d) Cross-sectional
- e) Survey

9. Which of the following are examples of cohort studies?

- a) Malaria prevalence in communities
- b) HIV incidence in married couples
- c) Assessing the impact of breast implants and breast cancer
- d) Prevalence of schistosomiasis in Coastal Kenya
- e) Prevalence of Zika in Brazil

10. Which of the following is not a data gathering method in cohort studies?

- a) Person to person
- b) E-mails
- c) Magazines
- d) Telephone interviews
- e) None of the above

11. Framingham study was designed to study the effect of multiple factors on coronary heart disease EXCEPT?

- a) Sex
- b) Diabetes mellitus
- c) Tobacco smoking
- d) Hypertension
- e) Blood cholesterol

12. Which of the following statements is true about use of multiple control and case control studies?

- a) Increasing the number of control for each can increase the power of study
- b) Only one control can be used for each case
- c) Use of different types of controls in relation to general population
- d) All of the above
- e) None of the above

13. The following are prevalence studies EXCEPT?

- a) Cross- sectional
- b) Case control
- c) Prospective cohort
- d) Survey
- e) Case reports

14. In randomized trials, historical controls?
- a) Can be useful for all studies
  - b) May not be able to substantiate differences
  - c) May have quality data
  - d) All of the above
  - e) None of the above
15. In randomized trials, selection of subjects should be as follows EXCEPT?
- a) Well designed
  - b) Introduce bias
  - c) Promote reliability
  - d) Eliminate subjectivity
  - e) Random
16. In authorship, substantial contribution include the following EXCEPT?
- a) Conception or design,
  - b) Data collection and processing,
  - c) Analysis and interpretation of the data
  - d) Writing substantial sections of the paper
  - e) None of the above
17. Which of the following is an example of analytical studies?
- a) Case control
  - b) Ecological
  - c) Case report
  - d) Case series
  - e) Cross section
18. In order to calculate the required sample size, which of the following facts is true?
- a) The reasonable estimate of the key proportion to be studied.
  - b) The degree of accuracy required
  - c) Choose the margin error
  - d) The confidence level required, usually specified as 95%.
  - e) The size of the population that the sample is to represent
19. The three main stages of data management can be distinguished as the following EXCEPT?
- a) Permission to proceed
  - b) Data collection
  - c) Data handling
  - d) All of the above
  - e) None of the above
20. FGD techniques can be used for the following EXCEPT?

- a) Develop relevant research hypotheses by exploring in greater depth the problem to be investigated and its possible causes.
- b) Formulate appropriate questions for more structured, larger scale surveys.
- c) Supplement information on community knowledge, beliefs, attitudes, and behavior already available but incomplete or unclear.
- d) FGDs are not used to test hypotheses or to produce research findings that can be generalized.
- e) None of the above

21. The following statements are true about confidentiality of information during research EXCEPT?

- a) Should be stated right on the top of the first page of the questionnaire
- b) If possible, use code numbers instead of names
- c) The purpose of the study should be explained at the beginning
- d) Participants names should be used in the records
- e) The respondent has the right not to be interviewed

22. Which of the following deals with fairness in research?

- a) Justice
- b) Malficence
- c) Non-Malficence
- d) Autonomy
- e) Beneficence

23. Which of the following deals with unlimited access to study participants information?

- a) Privacy
- b) Confidentiality
- c) Veracity
- d) Fidelity
- e) Justice

24. A work plan may include the following EXCEPT?

- a) The tasks to be performed;
- b) When and where the tasks will be performed; and
- c) Who will perform the tasks and the time each person will spend on them
- d) All of the above
- e) None of the above

25. The following is true about work plan EXCEPT?

- a) A tool for planning the details of the project activities and drafting a budget.
- b) A tool for data collection
- c) A visual outline or illustration of the sequence of project operations.
- d) A management tool for the Team Leader and members of the research team, showing what tasks and activities are planned, their timing, and when various staff members will be involved in various tasks.
- e) A tool for monitoring and evaluation, when the current status of the project is compared to what had been foreseen in the work plan.

26. Why is it important to state and define the statement of the problem well because a clear statement of the problem

- a) Is the foundation for the further development of the research proposal

- b) Makes it hard to find information and reports of similar studies from which your own study design can benefit;
- c) Disorganizes the researcher
- d) Interferes with data analysis
- e) Is a long statement

27. The following are uses of literature review EXCEPT?

- a) It prevents you from duplicating work that has been done before.
- b) It increases your knowledge on the problem you want to study and this may assist you in refining your "statement of the problem".
- c) It increases plagiarism
- d) It gives you confidence why your particular research project is needed.
- e) To be familiar with different research methods

28. The following is true about stating the objectives EXCEPT?

- a) Cover the different aspects of the problem and its contributing factors in a coherent way and in a logical sequence
- b) Are clearly expressed in measurable terms
- c) Are realistic considering local conditions
- d) Should be ambiguous
- e) Use action verbs that are specific enough to be measured

29. The following are vague non-action verbs that should be avoided during proposal writing EXCEPT?

- a) To appreciate
- b) To compare
- c) To understand
- d) To study
- e) To believe

30. The following are aims of research EXCEPT?

- a) To describe about a phenomena
- b) To predict about "something" in the future
- c) To follow a specific plan or procedure
- d) To explain about solution of problem
- e) To interpret what is being investigated

## Section B

- a) Describe the criteria for selecting a research topic (14mks)
- ii). Describe qualitative and quantitative research (6mks)
- b). Describe how to conduct a focus group discussion (15mks)
- ii). Describe matching in case control studies (5mks)