



**STRATHMORE UNIVERSITY**  
**FACULTY OF INFORMATION TECHNOLOGY**  
**Bachelor of Business Information Technology**  
**END OF SEMESTER EXAMINATION**

**BBT 3203: RESEARCH METHODOLOGY & TECHNICAL WRITING**

**DATE: 5<sup>th</sup> December 2017**

**TIME: 2 Hours**

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***Instruction: Attempt question 1 and any other TWO other questions***

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**QUESTION ONE: [Multiple Choice Questions (30 marks)]**

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1. A hypothesis is:

- a) The methodical evaluation of research evidence.
- b) A statement which serves as the basis for further investigation.
- c) A statement of the aims of an investigation.
- d) All of these.

2. Confounding variables are a problem in:

- a) Experimental studies.
- b) Longitudinal studies.
- c) Correlational studies.
- d) All of the above.

3. Randomized assignment is:

- a) Applied to participant groups to keep similar participants grouped together.
- b) Applied to participant groups to control for a confounding variable.
- c) Applied to data to control for a confounding variable.
- d) Sometimes done to data to allow cause and effect to be analysed.

4. \_\_\_\_\_ is a statistical index which describes the degree and direction of the relationship between two characteristics or variables.

- a) T-test
- b) Mean
- c) Correlation
- d) Probability

5. What is the name for a variable which wholly or partially accounts for the relationship between two other variables?

- a. Confounded variable.
- b. Congruent variable.
- c. Consistent variable.
- d. Confounding variable.

6. What is the name for a variable which is measured using 2 different values?

- a. Binomial.
- b. Binary.
- c. Dichotomous.
- d. All of these.

7. What is an example of a subject variable?

- a. Race.
- b. Gender.
- c. Religion.
- d. All of them

8. A cross sectional study is carried out to examine whether Navy personnel of a higher rank have more positive coping skills than those of a lower rank. Which of the following statement is true of this study?

- a. The independent variable is coping and the dependent variable is low rank.
- b. Neither variable is dependent as the researcher cannot manipulate them.
- c. The independent variable is rank and the dependent variable is coping skills.
- d. The independent variable is coping and the dependent variable is high rank.

9. The concept of 'variables':

- a. Is derived from physics.
- b. Has always been used in psychology.
- c. Is derived from statistics.
- d. Is derived from biology.

10. What sort of data are post codes (zip codes)?

- a. Nominal
- b. Ordinal
- c. Interval
- d. Ratio

11. What sort of variable is dress size?

- a. Ordinal
- b. Ratio
- c. Dependent
- d. Nominal

12. A mediator variable is:

- a. Another name for the independent variable.
- b. Responsible for the relationship between two other variables.
- c. Another name for the dependent variable.
- d. All of the above.

13. All else being equal, it is more likely results will be statistically significant if:

- a. You have a representative sample.
- b. You use random sampling.
- c. You have a larger sample.
- d. All of these.

14. When is a single case experimental study the most useful?

- a. When a participant has a rare condition.
- b. When studying behavior change.
- c. When research requires a substantial sample to be worthwhile or effective.
- d. When you are studying yourself.

15. The difference between a convenience sample and a representative sample is:

- a. The size - a representative sample is bigger.
- b. The convenience sampling selects participants randomly and a representative sample does not.
- c. The availability - a convenience sample is easier for the researcher to approach.
- d. A convenience sample limits the participants to the population of interest.

16. A study is conducted in which participants are recruited from third years from Universities in Nairobi. The study takes place on a Tuesday so only those in campus on that day take part. What sort of sample is this?

- a. A random sample.
- b. A representative sample.
- c. Convenience sample.
- d. None of these.

17. Which of the below is true of a research report?

- a. A research report does not give every last detail but provides a clear synthesis of the major and critical aspects of the research process.
- b. A research report gives every last detail of the major and critical aspects of the research process.
- c. A research report presents the stages of the research accurately down to the last detail, and in the order in which they occurred.
- d. An ideal is to include every detail about the research as fully as possible.

18. Which of the following lists presents the sections of a research report in the correct order?

- a. Title page, Abstract, Title, Introduction, Method, Results, Discussion, Conclusion, Appendices, References.
- b. Title page, Title, Abstract, Introduction, Method, Results, Discussion, Conclusion, References, Appendices.
- c. Title page, Abstract, Title, Introduction, Method, Results, Conclusion, Discussion, References, Appendices.
- d. Title page, Abstract, Title, Introduction, Method, Results, Discussion, Conclusion, References, Appendices.

19. What is the main job of the title?

- a. The title should characterize the entire report.
- b. The title should be witty.
- c. The title should give the reader a snappy version of all the results.
- d. None of these.

20. What benefit is served by using subheadings?

- a. They keep the material related to the major theme of the report.
- b. They keep the material in a logical order.
- c. They keep the material in a meaningful order.
- d. All of these.

21. When would you write an abstract?

- a. After the main body of the report has been drafted.
- b. After the introduction and method sections are completed.
- c. Before the introduction and after the title.
- d. Once you are aware of the results.

22. In what tense is it suggested that the introduction should be written?

- a. Past.
- b. Future.
- c. Present.
- d. None of these.

23. What does the results section highlight?

- a. The success of the study.
- b. The interpretation of the statistical findings.
- c. Outcome of data analysis.
- d. All of these.

24. Why is it important to read original articles when you are reviewing the literature?
- To obtain an overview of methods and procedures.
  - To examine the validity of the conclusions.
  - To look for flaws in the method.
  - All of these.
25. You are about to do a literature search, what would be the first stage?
- Order some inter-library loans.
  - Ask your lecturer for some articles.
  - Read introductory textbooks.
  - Do a literature search online.
26. Which section of a journal article is provided in most online electronic databases?
- Results.
  - Introduction.
  - Abstract.
  - Conclusion.
27. What is deemed a good measure of the quality of a journal?
- The OPAC factor.
  - The influence factor.
  - The intake factor.
  - The impact factor.
28. Which of the following titles communicates the likely contents of the report the best?
- The consequences of suggestive interviewing on subsequent eyewitness testimony.
  - The susceptibility of people to suggestive interviewing.
  - All in a fluster: the consequence of policing strategies.
  - A study of the influence of suggestive interviewing.
29. Normally, where in a research report are the hypotheses justified to the reader?
- In the discussion.
  - In the conclusions.
  - In the introduction.
  - None of these.
30. Why are the references included in a research project?
- To impress lecturers.

- b. To fully identify the source of information and ideas discussed in the report so that others may check for themselves.
- c. It is courtesy to the authors of the works that you have read.
- d. To keep a record of everything that you have read in writing the report.

## QUESTION TWO

[20 Marks]

Consider the problem statement below:

*"If you ask a random group of teenagers and adults, they will most likely say that the planet is more polluted than it was 25 years ago: the oceans and rivers are dirtier, the soil contaminated by chemicals, the air less healthy. In fact, because of legal reform and increased awareness, the earth's water and soil and air are actually cleaner. By refusing to see the state of the planet for what it is, we live in a state of fear and pessimism that really isn't necessary. We have been led to believe that the environment is in danger as part of a left-wing conspiracy to fund environmental groups that thrive on an imaginary crisis".*

Required.

- a) From the context above, suggest a suitable title for the research (2 marks)
- b) Come up with two research questions and corresponding research objectives (4 marks)
- c) If you were to conduct this research, justify the research design you will adopt (4 marks)
- d) Identify five (5) key issues that your Literature Review section will contain (10marks)

## QUESTION THREE

[20 Marks]

Consider the problem statement below.

*"Because of the drought, the dining halls have started using disposable tableware, because they believe they are aiding the environment by conserving water. However, the environmentally friendly act of reducing water use carries with it an unnoticed problem: we reduce water, but we vastly increase the amount of trash produced. If we ignore this problem, we do a grave disservice to the environment, because we get a short-term benefit of reducing water use but create a long-term intractable problem of solid waste when there is little landfill space available. An environmentally friendly solution to the water shortage is to have not disposable tableware, but recyclable tableware: paper plates, recyclable plastic forks and spoons, and drinks from aluminum cans that can be profitably recycled".*

- a) From the context above, suggest a suitable title for the research (2 marks)
- b) What data will you collect? Explain (2 marks)
- c) Who would comprise your respondents or source of data? (2 marks)
- d) Which method will you use to collect this data? Explain the reason. (4 marks)
- e) Explain the procedure you will follow in the analysis of your collected data. (6 marks)
- f) In data analysis, *reliability* is often confused with *validity*. Explain these terms using the context above (4 marks)

**QUESTION FOUR****[20 Marks]**

Use the excerpt below to answer questions that follow.

*A team of psychologists conducted an observation to investigate whether boys or girls at a local school are more likely to disobey uniform rules. They observed an opportunity sample of school students during lunchtime and recorded the number of rules broken with their uniform (e.g. shirt un-tucked, tie not done up properly). After observing 10 boys and 10 girls the psychologists then presented the modal scores of the number of uniform rules broken in the table below.*

	<i>Modal number of uniform rules broken</i>
<i>Boys</i>	<i>2</i>
<i>Girls</i>	<i>5</i>

- a) Outline one advantage and one disadvantage of using an observation in this research. (4 marks)
- b) Outline one advantage and one disadvantage of opportunity sampling in this research. (4 marks)
- c) State what observation, inference and recommendation(s) can be made from this study (6 marks)
- d) Discuss three (3) ethical issues that might arise in this research (6 marks)

**QUESTION FIVE****[20 Marks]**

Assume you wish to conduct research concerning small and medium sized enterprises selling second hand clothing in Nairobi.

- a) Justify the need to use a sample. Give any two (2) reasons (4 marks)
- b) What would be your sampling frame? Explain (2 marks)
- c) Which sampling method will you use? Explain the process (10 marks)
- d) Explain your understanding of the term “representative sample” (2 marks)
- e) How will you ensure that your sample is representative? (2 marks)