



# **MASENO UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018**

### **SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

#### **CITY CAMPUS**

#### **CIT 206: RESEARCH METHODS**

Date: 16<sup>th</sup> June, 2018

Time: 12.00 - 3.00pm

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#### **INSTRUCTIONS:**

- Answer Question ONE and any other TWO.



**QUESTION ONE [30 MARKS]**

1. A dependent variable refers to:
  - a) the variable being manipulated or varied in some way by the researcher.
  - b) a variable with a single value which remains constant in a particular context.
  - c) the variable which shows us the effect of the manipulation
  - d) the experimental condition
2. A study is carried out to compare offenders with non-offenders on their levels of coping. Which following statement is true of this study?
  - a) The independent variable is coping and the dependent variable is type of person.
  - b) Both variables are dependant as the researcher cannot manipulate them.
  - c) The independent variable is type of person and the dependant variable is their level of coping.
  - d) There are two independent variables; offender and non-offender, and one dependant variable, which is level of coping.
3. What sort of variable is manipulated by the researcher?
  - a) Dependent.    b) Co-dependent.    c) Independent.
  - d) All variables are manipulated by the researcher
4. Which of the following constitute discrete variables?
  - a) Number of reported crimes in one week.    b) Type of offender, e.g. rapist, burglar, thief.
  - c) Favourite animal.    d) A student's top typing speed.
5. When planning to do social research, it is better to:
  - a) Approach the topic with an open mind    b) Do a pilot study before getting stuck into it
  - c) Be familiar with the literature on the topic
  - d) Forget about theory because this is a very practical undertaking
6. Which comes first, theory or research?
  - a) Theory, because otherwise you are working in the dark
  - b) Research, because that's the only way you can develop a theory
  - c) It depends on your point of view
  - d) The question is meaningless, because you can't have one without the other
7. We review the relevant literature to know:
  - a) What is already known about the topic
  - b) What concepts and theories have been applied to the topic
  - c) Who are the key contributors to the topic    d) All of the above
8. A deductive theory is one that:
  - a) Allows theory to emerge out of the data
  - b) Involves testing an explicitly defined hypothesis
  - c) Allows for findings to feed back into the stock of knowledge
  - d) Uses qualitative methods whenever possible
9. Which of the following is not a type of research question?
  - a) Predicting an outcome    b) Evaluating a phenomenon
  - c) Developing good practice    d) A hypothesis
10. Which of the following is not a data-collection method?
  - a) Research questions    b) Unstructured interviewing
  - c) Postal survey questionnaires    d) Participant observation
11. Why is data analysis concerned with data reduction?
  - a) Because far too much data is collected than is required
  - b) Because we need to make sense of the data
  - c) Because of the repetitions in answers to questionnaires
  - d) Because the sample size has been exceeded

12. Because of the number of things that can go wrong in research there is a need for:
- Flexibility and perseverance
  - Sympathetic supervisors
  - An emergency source of finance
  - Wisdom to know the right time to quit
13. What does an empiricist believe?
- We should not apply natural science methods to social science research
  - It is the sociologist's aim to understand the meaning of social action
  - Knowledge, in the form of 'facts', should be gained through sensory experience
  - Research conducted within the British empire was biased and unreliable
14. An inductive theory is one that:
- Involves testing an explicitly defined hypothesis
  - Does not allow for findings to feed back into the stock of knowledge
  - Uses quantitative methods whenever possible
  - Allows theory to emerge out of the data
15. The interpretivist view of the social sciences is that:
- Their subject matter is fundamentally different to that of the natural sciences
  - We should aim to achieve the interpretive understanding of social action
  - It is important to study the way people make sense of their everyday worlds
  - All of the above
16. The qualitative research strategy places a value on:
- Using numbers, measurements and statistical techniques
  - Generating theories through inductive research about social meanings
  - Conducting research that is of a very high quality
  - All of the above
17. What is a research design?
- A way of conducting research that is not grounded in theory
  - The choice between using qualitative or quantitative methods
  - The style in which you present your research findings, e.g. a graph
  - A framework for every stage of the collection and analysis of data
18. If a study is "reliable", this means that:
- It was conducted by a reputable researcher who can be trusted
  - The measures devised for concepts are stable on different occasions
  - The findings can be generalized to other social settings
  - The methods are stated clearly enough for the research to be replicated
19. "Internal validity" refers to:
- Whether or not there is really a causal relationship between two variables
  - Whether or not the findings are relevant to the participants' everyday lives
  - The degree to which the researcher feels that this was a worthwhile project
  - How accurately the measurements represent underlying concepts
20. In an experimental design, the dependent variable is:
- The one that is not manipulated and in which any changes are observed
  - The one that is manipulated in order to observe any effects on the other
  - A measure of the extent to which personal values affect research
  - An ambiguous concept whose meaning depends on how it is defined
21. What is a cross-sectional design?
- A study of one particular section of society, e.g. the middle classes
  - One that is devised when the researcher is in a bad mood
  - The collection of data from more than one case at one moment in time
  - A comparison of two or more variables over a long period of time
22. Survey research is cross-sectional and therefore:
- High in replicability but low in internal validity



- b) High in internal validity but low in reliability
  - c) High in ecological validity but low in external validity
  - d) None of the above
23. The role of a project supervisor is to:
- a) Make sure you keep to your schedule and deadlines
  - b) Provide intellectual support, guidance and critical feedback
  - c) Negotiate access to the research setting on the student's behalf
  - d) Give you a reading list
24. How can you tell if your research questions are really good?
- a) If they guide your literature search
  - b) If they are linked together to help you construct a coherent argument
  - c) If they force you to narrow the scope of your research
  - d) All of the above
25. Why do you need to review the existing literature?
- 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
26. To read critically means:
- a) Taking an opposing point of view to the ideas and opinions expressed
  - b) Skimming through the material because most of it is just padding
  - c) Evaluating what you read in terms of your own research questions
  - d) Being negative about something before you read it
27. What is the first stage of a systematic review?
- a) Assess the relevance of each study to the research question(s)
  - b) Define the purpose and scope of the review
  - c) Appraise the quality of studies from the previous step
  - d) Survey all of the literature contained within a single library
28. The goal of ethics in research is to \_\_\_\_\_.
- a). to ensure that no one is harmed
  - b). to protect researchers from legal liability
  - c) to identify what behaviour is appropriate
  - d) to ensure research sponsors fulfil their legal obligations
29. Which of the following does not require a deep and thoughtful understanding in the selection of a theoretical framework?
- a) problem
  - b) population
  - c) purpose
  - d) Significance
30. Extraneous variable can also be referred to as?
- a) Confounding variable
  - b) Intervening variable
  - c) Modifying variable
  - d) all the above

**QUESTION TWO [20 MARKS]**

- a. Briefly explain with examples the terms independent, dependent and confounding variables [6 marks]
- b. Compare and contrast validity and reliability as used in research. [6 marks]
- c. With relevant examples, explain the four levels of measurement used in research. [8 marks]

**QUESTION THREE [20 MARKS]**

- a. Name and define three measures of central tendency [6 marks]
- b. Discuss the characteristics of scientific research [15 marks]

**QUESTION FOUR [20 MARKS]**

- a. Distinguish between deductive and inductive reasoning. [4 marks]
- b. Discuss the ethical issues that a researcher has to consider while carrying out research relating to the respondents [6 marks]
- c. Discuss the importance of literature review in a research proposal. [10 marks]

**QUESTION FIVE [20 MARKS]**

- a. During the last two decades, there has been a dramatic change in the business environment. The trend towards complexity has increased the risk associated with business decisions, making it more important to have a sound information base. In view of the above statement, discuss the role of research in today's organizations. [5 marks]
- b. Discuss any five probabilistic sampling techniques that a researcher may use to select a sample from the population giving an advantage and disadvantage for each. [15 marks]