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MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

MAIN EXAMINATIONS

2021/2022 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATIONS

MAIN EXAMINATIONS

FOR

THE BACHELOR OF SCIENCE IN DISASTER PREPAREDNESS AND ENVIRONMENTAL TECHNOLOGY

COURSE CODE: DPE 312

COURSE TITLE: RESEARCH METHODS AND SEMINAR

DATE: 25/04/2022   **TIME:** 12 – 2PM

INSTRUCTIONS TO CANDIDATES
Answer Question 1(ONE) and any other TWO Questions

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

QUESTION ONE (Compulsory)

A SDMHA student is interested in studying the effect of substance abuse on academic performance of students in MMUST.

a). Design a suitable *study title* to reflect the above research. (2 marks)

b) Outline the dependent variable, independent variable and a possible intervening variables for the above study. (4 marks)

c) (i) What do you understand by the term *"study limitation"*? (2 marks)

(ii) What are the TWO possible limitations likely to be faced by the student in this study? Explain your answer. (4 marks)

(d) In this research, explain whether you will use research hypotheses or research questions. (3 marks)

(e). Why is it often desirable to use both quantitative and qualitative methods of data collection in some research ? (4 marks)

(f). Explain in detail, the FIVE (5) key features of the scientific method for research. (5 marks)

QUESTION TWO

(a) Differentiate between primary data and secondary data, and how they are obtained in research. (4 marks)

(b) Elaborate on any FOUR (4) objectives of scientific research. (4 marks)

(c). (i) Define the term "research design", and explain its purpose. (2 marks)

(ii) Elaborate on the characteristics of a good research design and indicate potential problems in preparing a research design. (7 marks)

(d) Using examples, briefly explain the circumstances under which one can use the following research designs:

(i) Correlation Survey (3 marks)

(ii) Descriptive survey (3 marks)

QUESTION THREE

(a) Explain the 6 steps normally followed in defining a research problem . (9 marks)

(b) A series of landslides damages farms in parts of your village. As an expert in disaster management, you are called upon to assess the damage.

(i) What will be the target unit of analysis in this assessment, and why? (2 marks)

(ii) *Explain* any three methods you would use to collect your *primary* data, mentioning their appropriateness and the kind of data they will be used for. (9 marks)

(iii) What kind of secondary data would be needed for this assessment? (3 marks)

QUESTION FOUR

(a) Indicate the main characteristics of a good hypothesis and uses of hypothesis in various types of research studies. (4 marks)

(b) Differentiate between probability and non-probability sampling in terms of scope of application and key features. (6 marks)

(c) Using a suitable example, differentiate between proportional and non-proportional sampling. (4 marks)

(d) Explain any 5 types of ethical issues in research during collection of data in the field in relation to human subjects. (9 marks)