



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

THIRD YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

BACHELOR SCIENCE (COMPUTER SCIENCE)

SCO 309/SIT 395: RESEARCH METHODS AND TECHNICAL WRITING

DATE: 19/4/2023

TIME: 8:30 – 10:30 AM

INSTRUCTION: Answer Question ONE and any other TWO Questions

QUESTION ONE (30 MARKS)

- a) Define the term research. (2 marks)
- b) Discuss THREE reasons for conducting a literature review. (6 marks)
- c) Giving FOUR examples explain the factors you would consider when selecting a research problem. (8 marks)
- d) As a researcher you have been sent to the field to collect data. Discuss THREE methods you are likely to use. (6 marks)
- e) Using TWO examples illustrate FOUR characteristics of an objective in research.

(8 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the process that you would follow to accomplish a research task. (8 marks)
- b) Explain THREE functions of a research proposal. (6 marks)
- c) Explain THREE drawbacks of observation method of data collection. (6 marks)

QUESTION THREE (20 MARKS)

- a) Explain FOUR components of chapter one of research. (8 marks)
- b) Discuss giving examples the difference between primary and secondary data. (6 marks)
- c) Explain THREE features of a good research instrument. (6 marks)

QUESTION FOUR (20 MARKS)

- a) As a researcher sometimes you are not able to collect data from the entire population. Discuss FOUR sampling designs that are at your disposal. (8 marks)
- b) Explain THREE steps you would use to organize literature review of your research paper. (6 marks)
- c) Discuss THREE types of research. (6 marks)

QUESTION FOUR (20 MARKS)

- a) As a researcher you are concerned about the quality of your research paper. Explain FOUR features of a good research. (8 marks)
- b) Discuss FOUR challenges you are likely to face as computer science researcher. (8 marks)
- c) Discuss giving relevant examples TWO reasons for conducting research. (4 marks)