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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2022/2023 ACADEMIC YEAR**  
**THIRD YEAR, FIRST SEMESTER EXAMINATION**  
**FOR THE BACHELOR OF SCIENCE IN COMPUTER SCIENCE**  
**KCS 400 – RESEARCH METHODOLOGY**

Date: 16<sup>TH</sup> DECEMBER 2022  
Time: 11:30AM – 1:30PM

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

- a) With the knowledge of research, write an essay after your internship on the general understanding of research. (5 Marks)
- b) Explain what qualitative research is and what it involves (5 Marks)
- c) In your opinion why should the society embrace research? (6 Marks)
- d) Describe the observational design as used in research (6 Marks)
- e) Explain the importance of literature review in research (4 Marks)
- f) Differentiate between collection of data through questionnaires and schedules (4Marks)
- g)

**QUESTION TWO (20 MARKS)**

- a) Research employs different methods and instruments /Tools in data collection. Using this statement discuss by considering quantitative and qualitative research (7 Marks)
- b) Research in most cases play some roles, support this phrase using examples. (8 Marks)
- c) List 5 limitations that a researcher is likely to encounter during the process of research. (5 Marks)

**QUESTION THREE (20 MARKS)**

- a) What is the meaning of the following terms as used in research?
  - i) Dependent variable (5 Marks)
  - ii) Independent variable (5 Marks)
- b) Elaborate the importance of reliability and validity in research (10 Marks)

**QUESTION FOUR (20 MARKS)**

- a) Write short notes on the first, fifth and eighth steps in the research process. (10 Marks)
- b) List 3 factors that affect the sample size used in the process of research. (3 Marks)
- c) Establish the problems encountered by researchers during the research process. (7 Marks)

**QUESTION FIVE (20 MARKS)**

- a) According to your opinion, why do you think research is made to exist? (7 Marks)
- b) When carrying out research ethical issues should be given a serious consideration. Discuss. (7 Marks)
- c) Differentiate between collection of data through questionnaires and schedules (4 Marks)
- d) Explain Four guiding considerations in the construction of questionnaire (4 Marks)