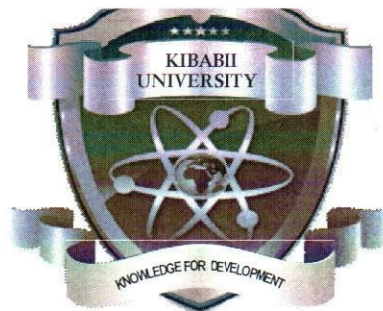


15



(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS
YEAR THREE SEMESTER TWO EXAMINATIONS**

**FOR THE DEGREE OF
BACHELOR OF SCIENCE COMPUTER SCIENCE**

**COURSE CODE : CSC 322
COURSE TITLE : RESEARCH METHODS &
TECHNICAL WRITING**

DATE: 24/11/22 TIME: 11.00 A.M – 01.00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE AND ANY OTHER TWO

QUESTION ONE [20 MARKS]

- a) State the key players in a research process and explain the role of each player. **(6 marks)**
- b) State what a research proposal is and the questions it answers. Explain three functions of a proposal. **(6 marks)**
- c) Explain any six primary sources of literature review. **(6 marks)**
- d) What is a research problem? State any two main issues that should receive the attention of a researcher in formulating the research problem. Give a suitable example to expound your points. **(6 marks)**
- e) The diagram (attached) shows part of the first page of a published research paper. Use APA style to show how this paper shall be in-cited and also referenced under the references section. **(6 marks)**

QUESTION TWO [20 MARKS]

- a) Distinguish between descriptive and inferential statistics. Give suitable examples. **(5 marks)**
- b) List and explain any five basic components of a proposal format. **(5 marks)**
- c) Use the following abstract of a possible project to answer questions that follow:

ABSTRACT

“This project involves the design and implementation of a crime map- a map based system which maps crimes that take place in Kenya to their locations, and provides information of each crime. The system also provides analytical tools that display statistics about each area- crime wise- and, also help in predicting crimes that might happen in the future. Moreover, an authorized party, such as the police, will be provided with a separate user interface to have access to more detailed information and functions than the general public users”

- i. Formulate a possible title, general and specific objectives for the project. **(5 marks)**
- ii. Prepare a realistic budget and time plan for the project. **(5 marks)**

- a) Some common research design approaches include survey, case study and experiments. State the circumstances under which you would opt for each of these approaches. **(6 marks)**
- b) You are developing a parking management system for Murang'a County to enhance the process of collecting and accounting for parking fees. You recently visited the County headquarters and conducted several interviews in an effort to understand the kind of system that the client wants.
- i. From your interviews and the knowledge gained in this class, give a list of possible user requirements that you think would make most sense. **(6 marks)**
- ii. Write a problem statement for the project. **(4 marks)**
- iii. Describe the methodology that can be used to carry out this project. **(4 marks)**

QUESTION FOUR [20 MARKS]

- a) State any four ethical considerations of a research project report. **(4 marks)**
- b) List and explain any four types of reports that are presented as an output of a research project. **(8 marks)**
- c) Discuss the IMRAD organization of a scientific paper. What does each initial stand for and what contents are expected in each section for a computing research project. **(8 marks)**