(*Knowledge for Development*)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR

END OF SEMESTER EXAMINATIONS
YEAR THREE SEMESTER TWO EXAMINATIONS

FOR THE DEGREE OF
(COMPUTER SCIENCE)

COURSE CODE   :   CSC 322

**COURSE TITLE   :   RESEARCH METHODS &
TECHNICAL WRITING**

DATE: 15/10/2021   TIME: 09.00 A.M – 10.00 A.M

INSTRUCTIONS TO CANDIDATES

Answer question **ONE and any other TWO** questions

QUESTION ONE (COMPULSORY) [30 MARKS]

a) State the meaning of the term Research from the academic point of view.   (2 marks)

b) Differentiate between the following terms

i) Conceptual and Empirical literature   (4 marks)

ii) Research Questions and Research Hypothesis   (4 marks)

c) As a research student explain why you would include 'Suggested Areas for Further Studies' as an important section in your project report   (3 marks)

d) (i)Footnoting is quite similar to the modern-day numbering format as referencing formats. Explain why some authors may still prefer footnoting as opposed to the modern referencing formats.   (3 marks)

ii) List the Four essential elements of the New APA style of referencing.   (4 marks)

e) Briefly outline components considered critical to any research proposal.   (6 marks)

f) What do you mean by research design? Explain 2 different types of research design.

(4 marks)

QUESTION TWO [20 MARKS]

a) Briefly outline Five points that demonstrate the significance of research.   (5 marks)

b) As a research student you need to carry out research in the field of computer science. With the aid of well labeled sketches briefly outline the various steps that you need to undertake in the process of carrying out research.   (5 marks)

c) Discuss the need and importance of literature review in the process of research. (5 marks)

d) Discuss the characteristics of an introductory chapter in a research proposal   (5 marks)

QUESTION THREE [20 MARKS]

a) Computers have become very essential devices in aiding researchers in carrying out research in their own fields of specialization. Imagine you are a student researcher, briefly discuss ANY TWO of the SIX most important characteristics of a computer.   (4 marks)

b) Despite computers being very handy in assisting researchers carry out analysis of research data collected, on the other hand they do have some limitations. As a computer science student discuss the **Three** main limitations of computer systems.   (6 marks)

c) Shortly describe the difference between quantitative and qualitative researches. (4 marks)

d) The "School Compost Project" was launched in 2021 in secondary schools in Bungoma with the objective of developing an awareness of how to make use of biodegradable waste in a profitable way. Explain how you would select a sample of secondary school students in Bungoma for the purpose of eliciting their views on the "School Compost Project" by (i) Simple random sampling, (ii) Systematic sampling, (iii) Cluster sampling. (6 marks)

QUESTION FOUR [20 MARKS]

a) Students working on research project have to prepare a report of what had been done. Writing of the report has to be done with great care keeping in mind proper layout of the report. Assuming you have a research project report to work on, briefly outline a layout of what is considered as a standard project report. (6 marks)

b) In a research project report one of the very key chapter is 'Summary of Findings, Conclusion, and Recommendations'. Discuss this chapter. (6 marks)

c) Write down two main differences between *qualitative* and *quantitative* research. (4 marks)

d) Explain the terms *internal validity* and *external validity*. (4 marks)

QUESTION FIVE [20 MARKS]

a) In most research project reports, chapter four is based on 'Data Presentation, Analysis and Discussion'. Outline the functions of this chapter. (5 marks)

b) Explain the importance of Statistics in the analysis of data in research taking into account both descriptive and inferential statistics. (5 marks)

c) Differentiate between independent and dependent variables (4 marks)

d) Researchers in developing countries are faced with many challenges in undertaking studies. With examples evaluate challenges that undermine research in Kenya. (6 marks)