

CHUKA



UNIVERSITY

**SUPPLEMENTARY/ SPECIAL EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF  
BACHELOR OF SCIENCE IN COMPUTER SCIENCE, BACHELOR OF SCIENCE  
APPLIED COMPUTER SCIENCE**

**COSC 380/ACSC 381: RESEARCH METHODS IN COMPUTER SCIENCE**

**STREAMS: BSC (COMP SCIE), BSC (ACSC)**

**TIME: 2 HOURS**

**DAY/DATE: WEDNESDAY03/02/2021**

**11.30 AM – 1.30 PM**

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**INSTRUCTIONS:**

**Answer Question ONE and ANY other TWO Questions**

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**Question One (30 Marks)**

- a) Explain the following terms as used in research. (4 marks)
- (i) Population:
  - (ii) Sample
  - (iii) Sampling
  - (iv) Variable
- b) What is the purpose of research? (4 marks)
- c) State any five source of knowledge in research. (4 marks)
- d) Outline the major steps in research. (6 marks)
- e) State any six source of research problems. (6 marks)
- f) Discuss the importance of research questions in a research proposal (6marks)

**Question Two**

- a) State and explain any two approaches used in research methods (4 marks)
- b) Discuss the various components/sections of a research report (8 marks)

- c) State and explain any four tools which can be used in data collection when carrying out a research, citing their advantages and disadvantages. (8marks)

**Question Three**

- a) State and discuss any four methods of sampling designs (8 marks)
- b) Evaluate any three types of research citing their advantages and their disadvantages. (12 marks)

**Question Four**

The following is a research for a second year student in Chuka University.  
“Factors influencing the rise of inflation in the Kenyan economy. A case of Chuka Municipality, Tharaka-Nithi County: Kenya”

- a) State the broad objective and any two specific objectives from the research topic. (5 marks)
- b) State any two research questions from the research topic. (5 marks)
- c) State any two hypotheses from the research topic (5 marks)
- d) Develop the problem statement from the above research topic (5 marks)

**Question Five**

- a) In writing a research proposal, literature review is a very important chapter. Explain the purpose of literature review in any research project. (5 marks)
- b) Briefly discuss any four ways of data presentation in a research project (8 marks)
- c) Highlight and explain the basic components of the research methodology chapter in any research project. (10 marks)
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