CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

CHUKA & EMBU

**FIRST YEAR EXAMINATION FOR THE AWARD OF
CERTIFICATE IN COMPUTER SCIENCE**

COSC 00190: INTRODUCTION TO COMPUTER SYSTEMS PROJECT

STREAMS: DIP. COMP. SCI Y2S2   **TIME: 2 HOURS**

DAY/DATE: THURSDAY 25/03/2021   **2.30 P.M. – 4.30 P.M**

INSTRUCTIONS:
- Answer question **ONE** and **TWO** other questions
- Do not write anything on the question paper
- This is a **closed book exam**, No reference materials are allowed in the examination room
- There will be **NO** use of mobile phones or any other unauthorized materials
- Write your answers legibly and use your time wisely.
- Marks are awarded for clear and concise answers.

SECTION A (Answer ALL questions in this section)

QUESTION ONE (30 Marks)

a.   List three Advantages of Using a Formal Project Management approach   (3 marks)

b.   List any three characteristics of a software project   (3 marks)

c.   Differentiate between project deliverables and milestones   (4 marks)

d.   Briefly discuss the role of each of the following parts of a project proposal

   I.   Title page   (2 marks)

  II.   Abstract   (2 marks)

 III.   Problem statement   (2 marks)

 IV.   Project timeline   (2 marks)

e. Name the three stages where testing taking place in the software development life cycle

(3

marks)

f. What is the role of SRC in the SDLC (2 marks)

g. Explain how the following risks affect a project (4 marks)

    i. Staff turnover

    ii. Management change

h. You have been hired as part of a software development team and you are expected to help in choosing the appropriate development methodology for a time critical project. Explain two appropriate methodologies for this project for your team to choose from   (3 marks)

SECTION B (ANSWER ANY TWO QUESTIONS)
QUESTION TWO (20MARKS)

a. With the aid of a diagram discuss the triple constraint concept as applied in project management (10 marks)

b. Explain how the following risks affects a project

    i. Management change (3 marks)

    ii. Hardware unavailability (3 marks)

    iii. Staff turnover (2 marks)

    iv. Product competition (2 marks)

QUESTION THREE (20MARKS)

a. Discuss software testing under the following levels

    i. System Testing (3 marks)

    ii. Regression Testing (3 marks)

    iii. Usability Testing (3 marks)

    iv. Portability Testing (3 marks)

b. Discuss the advantages of using the software prototyping development model   (8 marks)

QUESTION FOUR (20MARKS)

    a. Discuss how the following software tools and techniques help project managers in

        performing their duties   (12 marks)

        i.   Project Charter

       ii.   Gantt charts

     iii.   WBS document

    b. State and explain FOUR components of a systems project report   (8 marks)

QUESTION FIVE (20MARKS)

a. Briefly describe seven guidelines that must be followed while conducting a Viva Voce

    assessment.   (14 marks)

b. List and briefly describe THREE types of reports.   (6 marks)