

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF CERTIFICATE IN COMPUTER SCIENCE

COSC00190: INTRODUCTION TO COMPUTER SYSTEMS PROJECT

STREAMS:

TIME: 2 HOURS

DAY/DATE: MONDAY 4/12/2017

11.30 A.M – 1.30 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. Briefly discuss the need of each of the following parts of a user manual:
- i. Cover Page (2 Marks)
 - ii. Table of Contents (2 Marks)
 - iii. Definition of Terms (2 Marks)
 - iv. Technical Descriptions (2 Marks)
 - v. Contact Information (2 Marks)
- b. Differentiate between each of the following:
- i. Functional and Non-functional Requirements (4 Marks)
 - ii. System and User Requirements (4 Marks)

- c. Explain the importance of setting milestones in a systems project. (2 Marks)
- d. List FOUR characteristics of the scrum software development framework (4 Marks)
- e. List and briefly describe THREE types of reports. (6 Marks)

SECTION B (Answer any TWO questions)

QUESTION TWO (20 Marks)

- a. State and explain the role of FIVE members of a software development team. (10 Marks)
- b. Computer hardware can be classified as either input or output devices. Distinguish between input and output devices while giving TWO examples of such devices in each. (6 Marks)
- c. Discuss the importance of assessing a client's hardware before embarking on a computer systems project. (4 Marks)

QUESTION THREE (20 Marks)

- a. Explain the characteristics of a well-written computer project report (8 Marks)
- b. State and explain FOUR components of a systems project report (8 Marks)
- c. Briefly discuss TWO needs of a systems project report (4 Marks)

QUESTION FOUR (20 Marks)

- a. With the aid of diagrams, explain each of the following software development methodologies
 - i. Waterfall Model (3 Marks)
 - ii. Prototyping Model (3 Marks)
 - iii. Spiral Model (3 Marks)
 - iv. Incremental Model (3 Marks)
- b. Distinguish between test-driven development and feature-driven development. (4 Marks)
- c. Explain what each of the following acronyms stand for: (2 marks)
 - i. RAD
 - ii. RUP

- d. 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. List two appropriate methodologies for this project for your team to choose from. (2 Marks)

QUESTION FIVE (20 Marks)

- a. Discuss the purpose of a Viva Voce assessment. (6 Marks)
- b. Briefly describe seven guidelines that must be followed while conducting a Viva Voce assessment. (14 Marks)
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