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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR FIRST YEAR, SECOND SEMESTER EXAMINATION FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY CIT 1005 INTRODUCTION TO SYSTEM ANALYSIS AND DESIGN

Date: 12TH AUGUST 2024 Time: 8:30AM – 10:30AM

<u>INSTRUCTIONS TO CANDIDATES</u> <u>ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS</u> <u>QUESTION ONE (30 MARKS)</u>

- a) Case (computer-aided software engineering) is a tool that is aimed at automating document production processes and to speed up the process a developing the final system. Differentiate the two types of CASE tools. (4 Marks)
- b) File conversion translates the old system files to a suitable format that can be used by the new system. Briefly explain the conversion process involved if the existing filers are manual files.
- c) Explain the five common characteristics in all systems.
- d) The system selection process should be viewed as a project and a project team should be formed with the help of management, state the steps followed during the system selection process.
- e) Describe the three major information systems.
- f) System development process is a set of activities, methods, best practices, deliverables and automated tools that stakeholders use to develop and maintain. Highlight the principles of a system development. (6 Marks)

QUESTION TWO (20 MARKS)

- a) Documentation involves the preparation of documents that will be used to maintain the software & the user manuals. Describe the characteristics of a good documentation. (6 Marks)
- b) Discuss five fact finding techniques that an information engineer uses to analyze the current system if there's one. (6 Marks)
- c) By the use of a diagram, explain the classification and the hierarchical view of a computerbased information system. (8 Marks)

QUESTION THREE (20 MARKS)

- a) In the development phase, the computer-based business system is developed to conform to the design specification prepared in the preceding phase. Highlight the principles of system development. (6 Marks)
- b) The purpose of implementation is to translate the design documents into software product that can be used to carry out the intended processing tasks using the designated hardware & software environment. Describe the activities undertaken during system implementation. (7 Marks)
- c) Hardware installation involves the setting up of the new computer room, cabling, computer network, computers, computer desks, chairs & other related equipment's'. State the hardware requirements needed during hardware installation. (7 Marks)

(5 Marks)

(4 Marks)

(5 Marks)

(6 Marks)

QUESTION FOUR (20 MARKS)

- a) The purpose of a feasibility study is to define the problem & to decide whether or not a new system is viable. Describe main types of feasibility studies. (8 Marks)
- b) System acquisition is the process an organization generally goes through in selecting an information system. State the external acquisition steps during system acquisition. (6 Marks)
- c) System documentation refers to the manuals containing the design and implementation details. Discuss the classification of system documentation. (6 Marks)

QUESTION FIVE (20 MARKS)

a) System analysts uses skills to coordinate the efforts of different type of persons in an organization to achieve business goals. Briefly explain six skills required by system analysts.

(6 Marks)

- b) Stakeholders are the people involved in or affected by project activities. Describe project stakeholders. (7 Marks)
- c) System Development Life Cycle (SDLC) involves stages that a system analyst must traverse as he progresses from one stage to the other methodically answering questions and achieving results in each stage. Discuss stages of SDLC. (7 Marks)