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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: 12<sup>TH</sup> 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)