Subject: Application of Information and Communication Technologies

Course Code: CS181

Class: BSCYS-Fall 23

Section: A & B

Total Marks: 50

Date: 02-11-2023

Duration: 2 Hours

FM Name: Jameel Arif

HOD: 17/10/23

Q. No	Questions
1.	List essential hardware components that a computer system. Explain the purpose of each component.
2.	Differentiate among all categories of software. Under which category of Software do we categorize Linux?
3.	What is encryption? Describe the following concepts. a. Confusion b. Diffusion c. Chaotic Maps d. Substitution Box
4.	Describe Local Area Networks and Wide Area Networks also discuss the differences between them. Additionally, discuss the wired and wireless technologies commonly utilized in both LANs and WANs, and highlight their respective strengths and typical applications.
5.	Define flowcharts and Imagine a basic process for making a cup of tea. Create a flowchart to visually represent each step in the process. Use appropriate symbols and labels to make it clear and easy to follow.
6.	How is RAM linked to Cache? What role does cache play in speeding up a computer system?
7	Perform the following conversions. a. $(CAB0F)_{16}$ $(?)_{10}$ 640 /16 ≯ 12 b. $(101110101 1)_2$ $(?)_{16}$