## Lesson Plan(2022-2023)

| Discipline:<br>Electrical           | No. Of Days/Week Class Allotted: 4 | Name Of The Teaching Faculty: Priyadarshini Acharya  |  |  |
|-------------------------------------|------------------------------------|--|--|--|
| Subject:<br>Computer<br>Application |                                    | No. Of Weeks:15<br>Semester:20/03/23 to 27/06/23   |  |  |
| Week                                | Class Day                          | Theory Topics  |  |  |
| 1 <sup>st</sup>                     | 1 <sup>st</sup>                    | Chapter 1: COMPUTER ORGANIZATION: Introduction to computer, Evolution of computer, Generation of computer  |  |  |
|                                     | 2 <sup>nd</sup>                    | Define classifications of computer   |  |  |
|                                     | 3 <sup>rd</sup>                    | Basic organization of computer(Functional Block Diagram)   |  |  |
|                                     | 4 <sup>th</sup>                    | Input Devices, CPU, Output Devices   |  |  |
| 2 <sup>nd</sup>                     | 1 <sup>st</sup>                    | Computer Memory and Classification of Memory   |  |  |
|                                     | 2 <sup>nd</sup>                    | Chapter 2: COMPUTER SOFTWARE : Software concept, System software, Application software   |  |  |
|                                     | 3 <sup>rd</sup>                    | Overview of operating system Objectives and Functions of O.S,<br>Types of Operating System(Batch Processing,<br>Multiprogramming, Time Sharing Operating System) |  |  |
|                                     | 4 <sup>th</sup>                    | Features of DOS, define commands in Dos and its uses   |  |  |
| 3rd                                 | 1 <sup>st</sup>                    | Define WINDOWS and UNIX ,Programming Languages Compiler Interpreter  |  |  |
|                                     | 2 <sup>nd</sup>                    | Computer virus, Different Types of computer virus, Detection and prevention of Virus   |  |  |
|                                     | 3 <sup>rd</sup>                    | Applications of computers in different domain  |  |  |

|                 | 4 <sup>th</sup> | Chapter 3: COMPUTER NETWORK AND INTERNET: What is internet and its use in world, Internet process |  |
|-----------------|-----------------|---|--|
| <b>4</b> th     | 1 <sup>st</sup> | Networking Concepts   |  |
|                 | 2 <sup>nd</sup> | Networking Protocol   |  |
|                 | 3 <sup>rd</sup> | Date Transmission mode(Simplex mode, half-duplex mode, full-duplex mode)                          |  |
|                 | 4 <sup>th</sup> | Connecting Media(Twisted pair cable, co-axial cable, fibre optic cable)_                          |  |
| 5 <sup>th</sup> | 1 <sup>st</sup> | Network Topologies(Bus, star, ring, tree, mesh)   |  |
|                 | 2 <sup>nd</sup> | Types of Network(LAN, MAN, WAN, PAN)  |  |
|                 | 3 <sup>rd</sup> | Uses of network   |  |
|                 | 4 <sup>th</sup> | Networking Devices like Hub, Repeater, Switch, Bridge, Router, Gateway & NIC                      |  |
| 6 <sup>th</sup> | <b>1</b> st     | What is Internet and define their services  |  |
|                 | 2 <sup>nd</sup> | Internet Services like E-Mail, WWW, FTP, Chatting   |  |
|                 | 3 <sup>rd</sup> | Internet Conferencing, Electronic Newspaper & Online<br>Shopping                                  |  |
|                 | 4 <sup>th</sup> | Different types of Internet connectivity and ISP  |  |
| 7 <sup>th</sup> | 1 <sup>st</sup> | Chapter 4: FILE MANAGEMENT AND DATA PROCESSING: What is file and folder                           |  |
|                 | 2 <sup>nd</sup> | How to create a folder in our computer  |  |
|                 | <b>3</b> rd     | How to use file and folder in computer system   |  |
|                 | 4 <sup>th</sup> | What is data processing and use of file and folder  |  |
|                 |                 |   |  |

| 8 <sup>th</sup>  | 1 <sup>st</sup> | What is file access , method, file storage method                          |  |  |
|------------------|-----------------|--|--|--|
|                  | 2 <sup>nd</sup> | Define types of file access and storage method sequential, direct method   |  |  |
|                  | 3 <sup>rd</sup> | ISAM(Index Sequential access method)                                       |  |  |
|                  | 4 <sup>th</sup> | Define use and process of ISAM   |  |  |
| 9 <sup>th</sup>  | 1 <sup>st</sup> | Define Data Capture method   |  |  |
|                  | 2 <sup>nd</sup> | Define Data storage method   |  |  |
|                  | 3 <sup>rd</sup> | Define Data processing method  |  |  |
|                  | 4 <sup>th</sup> | Define Retrieval method  |  |  |
| 10 <sup>th</sup> | 1 <sup>st</sup> | Chapter 5: PROBLEM SOLVING METHODOLOGY: Define problem solving methodology |  |  |
|                  | 2 <sup>nd</sup> | What is Algorithm, Define its functions, it's types                        |  |  |
|                  | 3 <sup>rd</sup> | Algorithm methods like symbols, start, end etc                             |  |  |
|                  | 4 <sup>th</sup> | Define Problem Solving through Flowchart and define many problems          |  |  |
| 11 <sup>th</sup> | 1 <sup>st</sup> | Define Pseudo Code   |  |  |
|                  | 2 <sup>nd</sup> | Define Generation of programming languages and their uses                  |  |  |
|                  | 3 <sup>rd</sup> | What is Structured programming Language                                    |  |  |

|                  | <b>4</b> <sup>th</sup> |   |
|------------------|------------------------|---|
|                  | 7                      | Examples of Problem solving through Flowchart   |
|                  |                        |   |
| 12 <sup>th</sup> | <b>1</b> <sup>st</sup> | Chapter 6: OVERVIEW OF C-PROGRAMMING LANGUAGE: What is C-programming language   |
|                  | 2 <sup>nd</sup>        | Define programming languages like C, C++, JAVA, PYTHON etc  |
|                  | 3 <sup>rd</sup>        | What is Constant and Define Variable  |
|                  | 4 <sup>th</sup>        | Difference between the Constants and variables, Define Data types in C Managing Input and Output Operations             |
| 13 <sup>th</sup> | 1 <sup>st</sup>        | What is Operators, Define types and functions of Operators  |
|                  | 2 <sup>nd</sup>        | What is Expression, Type Conversion and Type Casting  |
|                  | 3 <sup>rd</sup>        | Decision Control and Looping statements(If, If-else, If-else-if, Switch, While, Do-while, For, Break, Continue & Go to) |
|                  | 4 <sup>th</sup>        | Programming Assignments using the above features  |
| 14 <sup>th</sup> | 1 <sup>st</sup>        | Chapter 7: ADVANCED FEATURES OF C: Features of C-programming  |
|                  | 2 <sup>nd</sup>        | Functions and Passing Parameters to the Function (Call by Value and Call by Reference)                                  |
|                  | 3 <sup>rd</sup>        | Differences between the Call by Value and Call by Reference in C-programming  |
|                  | 4 <sup>th</sup>        | What is Scope of Variables and Storage Classes in C-programming   |
| 15 <sup>th</sup> | 1 <sup>st</sup>        | What is Function, Define Recursion and types of Recursion function  |
|                  | 2 <sup>nd</sup>        | What is Array, Define types of Array , One Dimensional Array and Multi Dimensional Array                                |

| 3 <sup>rd</sup> | What is String Operations and Pointers  |
|-----------------|---|
| 4 <sup>th</sup> | Pointer Expression and Pointer Arithmetic Programming Assignments using the above features. Structure and Union (Only concepts, No Programming) |
|                 |   |