INTRODUCTION TO COMPUTING
(Common to CSE & IT)

Course Code: 15CT1101

Course Outcomes:
At the end of the course, the student will be able to

CO 1 Summarize the basics of computer and Recognize I/O devices

CO 2 Gain the knowledge of Memory and Compute different Number Codes

CO 3 Distinguish different types of softwares.

CO 4 Classify different types of languages and analyze the solution for a given problem.

CO 5 Analyze different protective measures for keeping data secure.

UNIT-I (10 Lectures)

INTRODUCTION TO COMPUTERS:

INPUT AND OUTPUT DEVICES:

UNIT-II (12 Lectures)

COMPUTER MEMORY AND PROCESSORS:
Introduction, Memory Hierarchy, Processor Registers, Cache Memory, Primary Memory, Secondary Storage Devices, Magnetic Tapes, Floppy Disks, Hard Disks, Optical Drives, USB Flash Drives, Memory Cards, Mass Storage Devices, Basic Processor Architecture
NUMBER SYSTEMS AND COMPUTER CODES:
Binary Number System, Working with Binary Numbers, Octal Number System, Hexadecimal Number System, Working with fractions, Signed Number representation in Binary Form, BCD Code, Other Codes

UNIT-III

COMPUTER SOFTWARE:

OPERATING SYSTEM:

UNIT-IV

INTRODUCTION TO ALGORITHMS AND PROGRAMMING LANGUAGES:
Algorithm, Control Structures used in Algorithms, Some More Algorithms, Flow Charts, Pseudo Code, Programming Languages, Generations of Programming Languages, Categorization of High Level Languages, Some popular High Level Languages, Factors Affecting Selection of Programming Languages.

UNIT-V

PROTECTING YOUR PRIVACY, YOUR COMPUTER AND YOUR DATA:
Understanding the needs for Security Measures: Basic Security Concepts, Threats to Users, Threats to Hardware and Threats to Data. Taking Protective Measures: Protecting yourself, Keeping your Data Secure, Safeguarding your Hardware
TEXT BOOK:

REFERENCES:
Introduction to Computing and Programming in Java: A Multimedia Approach. Mark Guzdial and Barbara Ericson. College of Computing/GVU Georgia Institute of Technology. PRENTICE HALL. , Upper Saddle River, New Jersey 07458. Welcome to an introduction to computers. This is the first easy lesson of Introduction to Computers. Early personal computers generally called microcomputers, sold often in kit form and in limited volumes and were of interest mostly to hobbyists and technicians. By the late 1970s, mass-market pre-assembled computers allowed a wider range of people to use computers, focusing more on software applications and less on development of the processor hardware.