

Discipline: <b>COMPUTER SCIENCE</b>	Semester: <b>1<sup>ST</sup></b>	Name of the Teaching Faculty: <b>S.R. PATTNAIK, Lecturer(CSE)</b>
Subject: <b>Computer Application</b>	No. of days class allotted/week: <b>04</b>	Semester from date:  No. of weeks: <b>15</b>
<b>Week</b>	<b>Class Day</b>	<b>Theory</b>
1 <sup>ST</sup>	1 <sup>st</sup>	Introduction to Computer & Evolution of Computers
	2 <sup>nd</sup>	Generation of Computers
	3 <sup>rd</sup>	Classification of Computers
	4 <sup>th</sup>	Basic Organisation of Computer (Functional Block diagram) Input Devices, CPU & Output Devices.
2 <sup>ND</sup>	1 <sup>st</sup>	Computer Memory and Classification of Memory
	2 <sup>nd</sup>	Software concept, System software, Application software
	3 <sup>rd</sup>	Overview of Operating System Objectives and Functions of O.S.
	4 <sup>th</sup>	Types of Operating System: Batch Processing, Multiprogramming, Time Sharing OS
3 <sup>RD</sup>	1 <sup>st</sup>	Features of DOS, Windows and UNIX
	2 <sup>nd</sup>	Programming Languages Compiler, interpreter
	3 <sup>rd</sup>	Computer Virus, Different Types of computer virus
	4 <sup>th</sup>	Detection and prevention of Virus, Application of computers in different Domain
4 <sup>TH</sup>	1 <sup>st</sup>	Networking concept, Protocol,
	2 <sup>nd</sup>	Connecting Media
	3 <sup>rd</sup>	Data Transmission mode
	4 <sup>th</sup>	Network Topologies
5 <sup>TH</sup>	1 <sup>st</sup>	Types of Network
	2 <sup>nd</sup>	Networking Devices like Hub, Repeater, Switch, Bridge, Router, Gateway & NIC
	3 <sup>rd</sup>	Internet Services like E-Mail, WWW, FTP, Chatting, Internet Conferencing, Electronic Newspaper & Online Shopping
	4 <sup>th</sup>	Different types of Internet connectivity and ISP
6 <sup>TH</sup>	1 <sup>st</sup>	Concept of File and Folder
	2 <sup>nd</sup>	File Access and Storage methods. Sequential, Direct, ISAM
	3 <sup>rd</sup>	Data Capture
	4 <sup>th</sup>	Data storage
7 <sup>TH</sup>	1 <sup>st</sup>	Data Processing and Retrieval
	2 <sup>nd</sup>	Algorithm, Pseudo code and Flowchart
	3 <sup>rd</sup>	Generation of Programming Languages
	4 <sup>th</sup>	Structured Programming Language
8 <sup>TH</sup>	1 <sup>st</sup>	Examples of Problem solving through Flowchart
	2 <sup>nd</sup>	Examples of Problem solving through Flowchart
	3 <sup>rd</sup>	<b>Introduction to C Programming</b>
	4 <sup>th</sup>	Structure of a C program
9 <sup>TH</sup>	1 <sup>st</sup>	Tokens in C: Character, Keyword, Datatype
	2 <sup>nd</sup>	Constant in C
	3 <sup>rd</sup>	Variable declaration and initialization
	4 <sup>th</sup>	Managing Input-Output(I/O) Operations
10 <sup>TH</sup>	1 <sup>st</sup>	Operators in C
	2 <sup>nd</sup>	Typecasting:
	3 <sup>rd</sup>	Operator Precedence and Associativity

	4 <sup>th</sup>	Decision Control statement: if, if..else, nested if
11 <sup>TH</sup>	1 <sup>st</sup>	Decision Control statement:if else ladder, switch statement
	2 <sup>nd</sup>	Looping or iteration statements: while, do while
	3 <sup>rd</sup>	Looping or iteration statements: for, nested for
	4 <sup>th</sup>	Jumping statements: goto, break, continue
12 <sup>TH</sup>	1 <sup>st</sup>	Jumping statements : break, continue
	2 <sup>nd</sup>	<b>Fuction:</b> Function declaration, function definition
	3 <sup>rd</sup>	Accessing a function, Formal Arguments, Actual Arguments
	4 <sup>th</sup>	Passing parameters to the function:Call by value, Call by reference
13 <sup>TH</sup>	1 <sup>st</sup>	Function recursion
	2 <sup>nd</sup>	Storage classes
	3 <sup>rd</sup>	Array: Array declaration and definition 1D, Accessing elements of an array
	4 <sup>th</sup>	Multidimensional Array
14 <sup>TH</sup>	1 <sup>st</sup>	Strings, strings constants
	2 <sup>nd</sup>	Strings library function
	3 <sup>rd</sup>	Pointers: Declaration and initialization
	4 <sup>th</sup>	Pointer Expression and Arithmetic
15 <sup>TH</sup>	1 <sup>st</sup>	Structure: declaration and Definition
	2 <sup>nd</sup>	Accessing structure members
	3 <sup>rd</sup>	Union: Declaration and Definition
	4 <sup>th</sup>	Accessing Union Members

**REFERENCE BOOKS:**

1. **“Computer Fundamentals”** by P K Sinha
2. **“FUNDAMENTALS OF COMPUTERS”** by E Balagurusamy
3. **“Computer Basics and C Programming”** by Rajaraman V