GOVERNMENT POLYTECHNIC, PURI
DEPARTMENT OF MATHEMATICS & SCIENCE.

Discipline: MECHANICAL ENGG.	Semester: First.	Name of the Teaching Faculty: **Mr.Paramananda Dash, Lecturer in Computer Application.**
Subject: **COMPUTER APPLICATION**	No. of days/per week class allotted:**04**	Semester From date: **25.10.2021** To Date: **31.01.2022** No.of Weeks:**15**
PRE-REQUISITE	Fundamental concepts only.	
COURSE OUTCOMES	**CO1:** Understand the fundamental concepts, i/o devices & various parts of computer. **CO2:** Understand the concepts software, hardware & operating system. **CO3:** Understand the Networking concepts, algorithms &flow charts. **CO4:** Understand the concepts of Programming Languages & techniques. **CO5:** Development of Programs using different techniques.	

Week	Class Day	Theory/Practical Topics	DELIVERY METHOD
1ST	1ST	Introduction to computer.	Whiteboard
	2ND	Evolution of Computers.	Whiteboard
	3RD	Generation of Computers.	Whiteboard
	4TH	Classification of computer.	Whiteboard
2ND	1ST	Basic Organization of Computer.	Whiteboard
	2ND	(Functional Block Diagram) Input devices, CPU & Output Devices.	Whiteboard
	3RD	Computer Memory and Classification Of Memory.	Whiteboard
	4TH	**QUIZ & ASSIGNMENT-I**	Discussion
3RD	1ST	Software Concept,	Whiteboard
	2ND	System software, Application software,	Whiteboard
	3RD	Overview of Operating System.	Whiteboard
	4TH	Objectives and Function Of O.S.	Whiteboard
4TH	1ST	Types of Operating System: Batch Processing,	Whiteboard
	2ND	Multiprogramming, Time Sharing OS	Whiteboard
	3RD	Features Of DOS, windows and UNIX ,	Whiteboard
	4TH	Programming Languages.	Whiteboard
5TH	1ST	Compiler, interpreter	Whiteboard
	2ND	Computer Virus Different types Of Computer Virus,	Whiteboard
	3RD	Detection of Prevention of Virus.	Whiteboard
	4TH	Application of computers in different Domain.	Whiteboard
6TH	1ST	Networking concept,	Whiteboard
	2ND	Protocol, Connecting Media, Date Transmission mode ,	Whiteboard
	3RD	Network Topologies, Types Of Network.	Whiteboard
	4TH	Networking Devices like Hub, Repeater, Switch	Whiteboard
7TH	1ST	Bridge, Router, Gateway & NIC	Whiteboard
	2ND	Internet Services like E-mail. WWW,	Whiteboard
	3RD	FTP, chatting, Internet Conferencing.	Whiteboard
	4TH	**QUIZ & ASSIGNMENT-II**	Discussion

8TH	1ST	Electronic Newspaper & Online Shopping.	Whiteboard
	2ND	Different Types of Internet connectivity and ISP.	Whiteboard
	3RD	Concept of File and Folder,	Whiteboard
	4TH	File Access and Storage methods.	Whiteboard
9TH	1ST	Sequential. Direct,	Whiteboard
	2ND	ISAM.	Whiteboard
	3RD	Data Processing And Retrieval.	Whiteboard
	4TH	Algorithm, Pseudo code and	Lecturenotes
10TH	1ST	Flowchart Generation of	PPT
	2ND	Programming Languages,	Whiteboard
	3RD	Structured Programming Language, Examples of problem solving through Flowchart	Whiteboard
	4TH	**QUIZ & ASSIGNMENT-III**	Discussion
11TH	1ST	Constants, Variables	Whiteboard
	2ND	Data Types in C	Whiteboard
	3RD	Managing Input and Output operations.	Lecture notes
	4TH	Decision control and looping Statement	Whiteboard
12TH	1ST	if, if-else, If –else-if,	PPT
	2ND	Switch, While, Do-while, For , Break, Continue & Go to	PPT
	3RD	Programming Assignments Using the above Features.	Whiteboard
	4TH	Functions and Passing Parameters to the Function.	Whiteboard
13TH	1ST	Call by Value and Call by Reference.	Whiteboard
	2ND	Scope of Variables and Storage Classes Recursion	Whiteboard
	3RD	Function and Types of Recursion.	Whiteboard
	4TH	One Dimensional Array, and Multidimensional Array,	Lecture notes
14TH	1ST	String Operation and Pointers.	Whiteboard
	2ND	Pointer Expression and Pointer	Whiteboard
	3RD	Arithmetic Programming	Whiteboard
	4TH	Assignments using the Above Features.	Whiteboard
15TH	1ST	Structure and Union.	Whiteboard
	2ND	Revision.	
	3RD	Revision.	
	4TH	Revision.	

LEARNING RESOUCES:

01. Computer Fundamentals. By P K Sinha, BPB.
02. Computer Fundamentals & Programming. By ReemaThareja, Oxford University Press.
03. Programming in C, By Yashavant Karnetkar. BPB.
04. Working with C, By Yashavant Karnetkar. BPB.

25/10/2021.

Sign. of Faculty concerned

25/10/21

Sign.of HOD i/c

Principal
G.P.Ruri