



DEPARTMENT OF ELECTRONICS

Anand Niketan College, Anandwan, Warora - 442 914

HOD: Dr. G. K. Singh, Cell: 9075322625, Email: ugclasses@gmail.com



BROCHURE

CERTIFICATE COURSE IN C AND C++ PROGRAMMING

(Approved by Gondwana University, Gadchiroli)

Duration: 70Hrs (5Hrs/Week)

Objectives:

On successful completion of the course the students will be able to do the following:

- To provide a training programming skill.
- To understand and develop programs independently.
- To provide a proper foundation for learning other programming languages.

Link for Admission: <https://forms.gle/NFArQhRP2RvgnMpT6>

Contents:

Part-A			
Lect. No.	Topics	Lect. No.	Topics
UNIT-I			
1.1	Introduction to C-Programming	1.11	Arithmetic Operators_Integer
1.2	C-Token, Identifiers and Keywords	1.12	Arithmetic Operators_FloatingPoint
1.3	C Variables	1.13	Arithmetic Operators_FloatingPoint
1.4	C-Storage Class	1.14	Precedence of Operators and Associativity
1.5	C-Constants	1.15	Assignment and Conditional Operator
1.6	Data types (Primary data types)	1.16	Relational and Logical Operators
1.7	Derived Data Types	1.17	Increment-Decrement Operators
1.8	Algorithm	1.18	Bitwise and Special Operators
1.9	Flowcharts	1.19	C-Library Functions (Formatted output)
1.10	Compiler and Interpreter	1.20	C-Library Functions (Formatted Input)
	MCQs – 1.1		MCQs – 1.2
UNIT-II			
2.1	1. Unformatted Input Functions	2.9	C - Looping Statement: for loop
2.2	2. Unformatted Output Functions	2.10	C - Looping Statement: nesting of for loops
2.3	Decision Making if Statement	2.11	C-Looping Statement: while loop
2.4	Decision Making if---else Statement	2.12	C-Looping Statement: do-while loop
2.5	Decision Making Nested if ... else and the else if ladder Statement	2.13	Break and Continue Statements
2.6	Decision Making switch statement		MCQs - IV
2.7	goto statement and ternary operator		
2.8	Conditional operator		



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Part-B			
Lect. No.	Topics	Lect. No.	Topics
UNIT-III			
3.1	C - Arrays - Introduction	3.11	Structure
3.2	One-dimensional array	3.12	Union
3.3	Two-dimensional array	3.13.1	Pointer - 1
3.4	Multi-dimensional array	3.13.2	Pointer - 2
3.5	C- Functions	3.13.3	Pointer - 3
3.6	C- Function's Working	3.13.4	Pointer - 4
3.7	Example programs on C- Functions	3.13.5	Pointer - 5
3.8	Types of User-Defined Functions	3.13.6	3.13.6 Pointer - 6
3.9	Nesting and Recursion of C - Function		MCQs – 3.2
3.10	Scope and lifetime of a variable		
	MCQs – 3.1		
UNIT-IV			
4.1	File Management	4.6	Software evolution, POP and OOP
4.2.1	Input/Output Operations on Files	4.7	OOP paradigm
4.2.2	Input/Output Operations on Files	4.8	OOP and its Basic Concepts
4.2.3	Input/Output Operations on Files	4.9	Benefits and applications of OOPs
4.2.4	Input/Output Operations on Files		Introduction to C++, Applications and comparison with C
4.3	Error Handling	4.10	C++ Tokens
4.4	Random Access to Files	4.11	Variables
4.5	Command Line Arguments	4.12	Basic Data Types
	MCQs – 4.1	4.13	. Operators in C++
		4.14	C++: Tokens, Keywords, Identifiers
		4.15	Constants, Variables
		4.16	Basic data types
		4.17	Operators in C++
		4.18	Manipulators
		4.19	Operators overloading
		4.20	C++ Example Programs
			MCQs – 4.2



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Note:

1. Online exam will be conducted on each unit, and
2. Also, there will be a final exam on complete syllabus.
3. All Online exams will be MCQ type.
4. Passing marks is 50%.