

# CERTIFICATE COURSE IN C AND C++ PROGRAMMING

APPROVED BY

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HEAD

DEPARTMENT OF ELECTRONICS

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VERSION-1

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# UNIT - I

1.1 Introduction to C-Programming:	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.2 C-Token, Identifiers and Keywords:	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.3 C Variables	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.4 C-Storage Class	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.5 C-Constants	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.6 Data types (Primary data types)	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.7 Derived Data Types	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.8 Algorithm	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.9 Flowcharts	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.10 Compiler and Interpreter	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
MCQ – 1.1		<a href="#"><u>PDF FILE</u></a>

1.11 Arithmetic Operators_Integer	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.12 Arithmetic Operators_Floating Point	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.13 Arithmetic Operators_Mixed Mode and C Type Casting Function	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.14 Precedence of Operators and Associativity	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.15 Assignment and Conditional Operator	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.16 Relational and Logical Operators	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.17 Increment-Decrement Operators	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.18 Bitwise and Special Operators	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.19 C-Library Functions (Formatted output)	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
1.20 C-Library Functions (Formatted Input)	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
MCQs – 1.2		<a href="#"><u>PDF FILE</u></a>

## UNIT - II

2.1 Unformatted Input Functions	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.2 Unformatted Output Functions	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.3 Decision Making if Statement	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.4 Decision Making if---else Statement	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.5 Decision Making Nested if ... else and the else if ladder Statement	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.6 Decision Making switch statement	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.7 goto statement and ternary operator	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
2.8 Conditional operator	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
MCQs – 2.1		<a href="#"><u>PDF FILE</u></a>

2.9 C - Looping Statement: **for** loop

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2.10 C - Looping Statement: **nesting of for**  
loops

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2.11 C-Looping Statement: **while** loop

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2.12 C-Looping Statements: **do-while** loop

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2.13 **Break** and **Continue** Statements

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MCQ – 2.2

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## UNIT - III

3.1 C - Arrays - Introduction	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.2 One Dimensional Array	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.3 Two-Dimensional Array	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.4 Multi-Dimensional Array	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.5 C- Functions	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.6 C- Function's Working	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.7 Example programs on C- Functions	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.8 Types of User-Defined Functions	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.9 Nesting and Recursion of C - Function	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
3.10 Scope and lifetime of a variable	<a href="#">LECTURE VIDEO</a>	<a href="#">PDF FILE</a>
MCQs – 3.1		<a href="#">PDF FILE</a>

3.11 Structure

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3.12 Union

[LECTURE VIDEO](#) [PDF FILE](#)

3.13.1 Pointer

[LECTURE VIDEO](#) [PDF FILE](#)

3.13.2 Pointer

[LECTURE VIDEO](#) [PDF FILE](#)

3.13.3 Pointer

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3.13.4 Pointer

[LECTURE VIDEO](#) [PDF FILE](#)

3.13.5 Pointer

[LECTURE VIDEO](#) [PDF FILE](#)

3.13.6 Pointer

[LECTURE VIDEO](#) [PDF FILE](#)

MCQs – 3.2

[PDF FILE](#)

# UNIT - IV

## 4.1 File Management

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### 4.2.1 Input/Output Operations on Files

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### 4.2.2 Input/Output Operations on Files

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### 4.2.3 Input/Output Operations on Files

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### 4.2.4 Input/Output Operations on Files

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## 4.3 Error Handling During IO Operations

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## 4.4 Random Access to Files

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## 4.5 Command Line Arguments

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### MCQs – 4.1

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4.6	Software evolution, POP and OOP	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.7	OOP Paradigm	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.8	OOP and its Basic Concepts	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.9	Benefits and applications of OOPs	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.10	Introduction to C++, Applications and comparison with C	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.11	C++ Tokens	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.12	Variables	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.13	Basic Data Types	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.14	Operators in C++	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
4.15	C++ Example Programs	<a href="#"><u>LECTURE VIDEO</u></a>	<a href="#"><u>PDF FILE</u></a>
	MCQs – 4.2		<a href="#"><u>PDF FILE</u></a>