F.Y.B.Sc

SEM - II

KAVAYITRI BAHINABAI CHAUDHARI NORTH MAHARASHTRA UNIVERSITY

COMPUTER

CS - 202

CBCS PATTERN

C PROGRAMMING

LANGUAGE-II

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Dr. Rupali P. Patil

Anil R. Patil

Prashant

As per U.G.C. Guidelines and on the basis of revised syllabus of
KAVAYITRI BAHINABAI CHAUDHARI
NORTH MAHARASHTRA UNIVERSITY
with effect from June, 2018, Also useful for all Universities.

F.Y.B.Sc. (CBCS) | CS-202 | Sem II

C PROGRAMMING-II

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Syllabus for F.Y.B.Sc. Computer Science (CBCS)

w.e.f. June 2018 (Semester System 60 + 40 Pattern)

Semester - II : **CS-202 : C Programming - II**

[H: 7]

Unit-1. Function

1.1 Function Introduction and Needs

1.2 Declaration and Prototypes

1.3 Function calling (Call by value, call by reference)

1.4 Function with return and Function with argument

1.5 Recursion

1.6 String Functions(strlen().strcat(),strcmp(),strrev(),strcpy())

[H: 7]

Unit -2. Pointers

2.1 Introduction

2.2 Address and arguments,

2.3 Declaration, accessing value through a pointer.

2.4 Operations on Pointers :Array and pointer, Function and pointer, pointer to pointer.

2.5 Dynamic memory allocation and releasing dynamically allocated memory

[H: 5]

Unit -3. Structure and union

3.1 Introduction. declaration and accessing of structure & union

3.2 Nested structure.

3.3 Array of structure.

[H: 5]

Unit -4. Graphics

4.1 Introduction to Graphics in C

4.2 Graphics Functions : Initgraph(),putpixel(),line(),circle(),rectangle(),ellipse(),arc(), closegraph(), outtextxy(), setcolor(), setbgcolor(), bar().

[H: 5]

Unit -5. File handling in C

5.1 Concept of files, records, field,.

5.2. File processing - fopen(),fclose(), fprintf(),fscanf(),getc(),putc(),getw(),putw(), feof(), rewind(), fseek(), ftell(), fputs(),fgets().

5.3 Various modes of file opening and closing files.

5.4 Command line argument.

COMPUTER SCIENCE

CS - 202
C Programming - II

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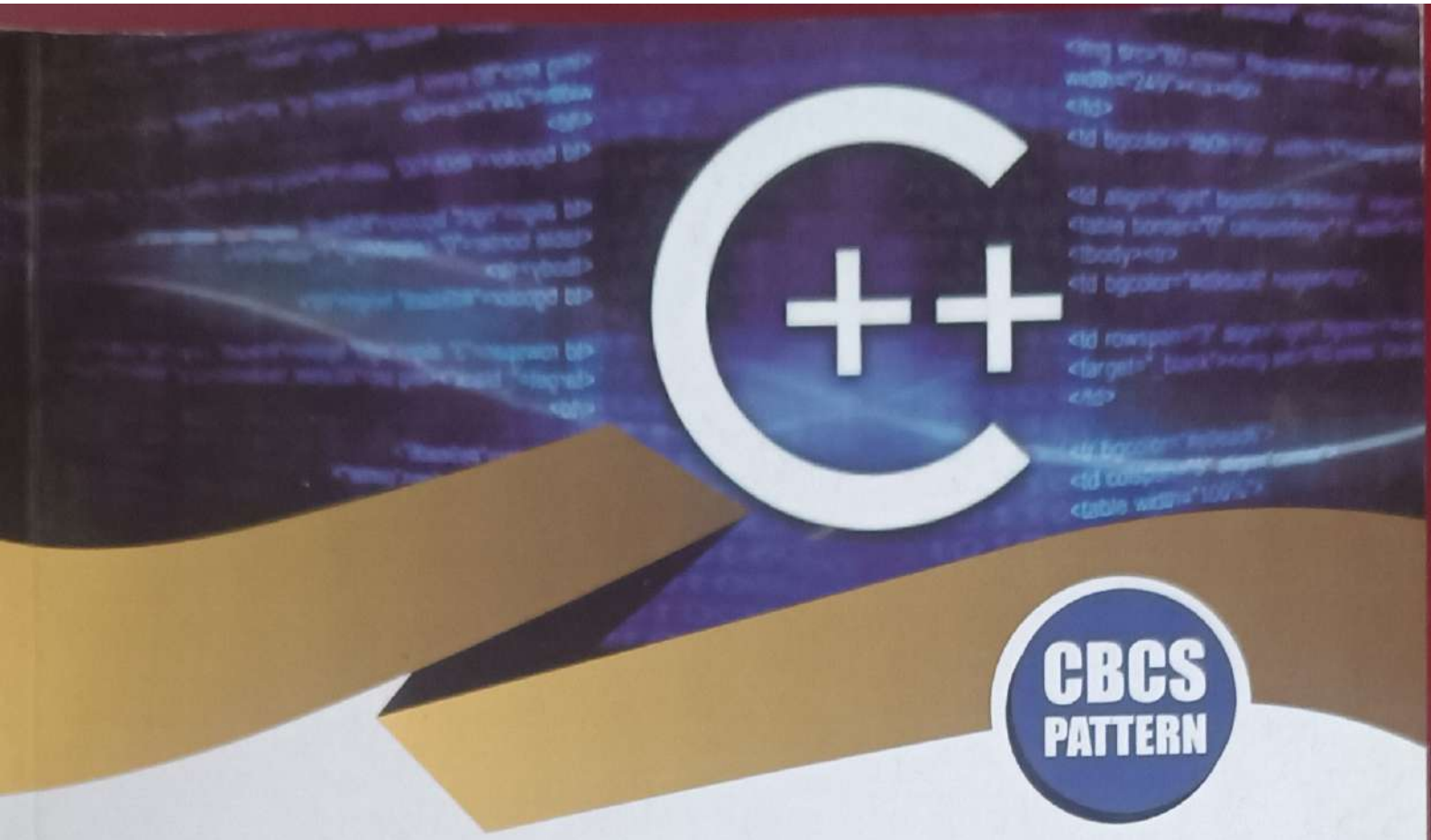

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KAVAYITRI BAHINABAI CHAUDHARI NORTH MAHARASHTRA UNIVERSITY, JALGAON

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S.Y.B.Sc. | CS 402 | SEM IV

PROGRAMMING IN C++ - II

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COMPUTER

Semester - IV, CS- 402 : Programming in C++ - II

Unit 1 : Constructors and Destructors **(L:06, M: 20)**

3.1 Concept of Constructor.
3.2 Types of Constructor: Default Constructor, Parameterized Constructor, Copy Constructor.
3.3 Overloaded Constructors in a class.
3.4 Constructor with default arguments.
3.5 Destructors.

Unit 2 : Inheritance and Extending Classes **(L:10, M:20)**

2.1 Introduction to Inheritance
2.2 Types of Inheritance
2.3 Derived Class Constructors
2.4 Benefits of inheritance in C++
2.5 This pointer.
2.6 Abstract class, pure virtual function

Unit 3 : Exception Handling **(L:4, M:14)**

3.1 Concept of Exception Handling mechanism
3.2 Concept of try, throw and catch
3.3 Multiple catch statements
3.4 Standard Exception in C++

Unit 4 : Templates & Introduction to Standard Template Library **(L:04, M :18)**

4.1 Basic of templates, Function templates, Class templates
4.2 Templates with multiple parameter
4.3 Introduction to STL,
4.4 Components of STL, Containers (Sequence, Associative & Derived)

Unit 5 : Working with Files **(L:06, M :18)**

5.1 Introduction
5.2 Hierarchy of File Stream Classes.
5.3 Opening and Closing Files.
5.4 File modes
5.5 File Input/output with fstream class.

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SEM I • BCA-103

Bachelor of Computer Application

PROGRAMMING IN C - I

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SYLLABUS

Bachelor of Computer Applications (BCA)

Programming in C - I | Sem. I | BCA-103

w.e.f. Academic Year 2022-23 (Semester System 60 + 40 Pattern)

Unit 1 : Preliminary Concepts (10 L, 15 M)

- History of 'C' Programming language
- Applications and Features
- Concept of Structured Programming
- Structure of C-program
- Compilation, Execution and Debugging of C-program, Types of Errors
- Introduction to IDE, Types of IDEs: Turbo C++, Textpad, DevCPP, Code block etc.

Unit 2 : Basics of 'C' Program (10 L, 15 M)

- C character set, Tokens : identifiers, keywords, Constants, Strings, Special Symbols and Operators
- Variables, Data types and Qualifiers, Assignment statement, Comments
- Input Output Statements (Standard and formatted)
- Introduction and features of 'C' preprocessor Directives: #define, File inclusion (#include)

Unit 3 : Operators and Expression (10 L, 15 M)

- Operators – Arithmetic, Relational, Logical, Assignment, Increment-Decrement, Conditional Operator, Bitwise, Special Operator (Comma, size of), Operator hierarchy & associativity
- Type Conversion – implicit and explicit.

Unit 4 : Control Statements (10 L, 15 M)

- If Statement, if-else Statement, nested if-else Statement, else-if ladder, Switch Statement
- Break, continue and goto statements
- Looping Concepts : While, do-while, for loop Nested loops Concept.

Unit 5 : Arrays and Strings (10 L, 15 M)

- Definition: Array: declaration and Initialization
- Types of array(One Dimensional and Multidimensional)
- Advantages and disadvantages of array
- Applications of array
- Strings, Standard library string function: strlen(), strcpy(), strcat(), strcmp() etc.

Unit 6 : C Libraries (10 L, 15 M)

- Introduction to C Programming Libraries : stdio.h, conio.h, stdlib.h, math.h, graphics.h, time.h, ctype.h.
- Math.h - abs (), sqrt( ), pow( ), ceil( ), floor( )
- Time.h - getdate(), clock(), time(), difftime()
- Ctype.h - islower(), isupper(), isalnum(), isdigit()
- Stdlib.h - exit(), random()

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