

## BACHELOR OF COMMERCE - FIRST SEMESTER

### PROGRAMMING IN “C”

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Code:SC 1.6

Contact Hours: 56

Credits: 4

Evaluation: Continuous Internal Assessment – **30 Marks**  
Semester-End Examination – **70 Marks**

Univ Code:

Work load: **4 hours per week**

#### **Objectives:**

#### **Pedagogy:**

- Module 1: Introduction:** Characteristics and Applications of C, Basic structure of C program, Programming Style, Compiling and Executing a C program.
- Module2: Constants, Variables and Data Types:** C Tokens, keywords and identifiers, constants, Tables, Data types, declaration of variables, assigning values to variables, defining constants.
- Module3: Operators and Expression:** Arithmetic Operators and Expressions, precedence of systematic operators, some computational problems, Type conversion in expression, precedence associativity, mathematical functions, pre-processor statements.
- Module4: Managing Input and Output Operations:** formatted and unformatted input/output elements; **Control Statements:** Conditional control statements, looping statements, conditional control statements; **Arrays:** One-dimensional arrays, two-dimensional arrays, initializing the two-dimensional arrays, Multi-dimensional arrays.
- Module 5: Handling the Character Strings:** Declaring and initializing string variables, reading strings from terminals, writing strings to screen, arithmetic operations on characters, putting strings together, Comparison of two strings, string-Handling functions; **User-Defined Functions:** Need for user-defined functions, Functions, Arguments parameters, local and global variables, function declaration, parameter passing chanism, recursion.

#### **Practicals:**

Practical: 2 Hrs./ Week

IA Marks: 20

(Practicals)

#### **Programmin in C involving:**

Evaluation of arithmetic Expressions, Control Structures, for, while, do while, switch, if, String processing, Array manipulation, User defined functions and Structures, Unions and Pointers.

**Note:** The internal Assessment marks (Maximum 20) shall be awarded by the concerned course-teacher based on the two practical tests of 2 hours duration each conducted by him/her during the semester.

### **Recommended Books**

1. E. Balaguruswamy, Programming in ANSI C, Edition 2.1 Tata McGraw Hill,(2002).
2. Ashok N. Kamthane, Programming with Ansi and Turbo C, Pearson Education,
3. M.G Venkateshmurthy, Programming Techniques through C, Pearson Education.
4. P.B Kotur, Computer Concepts and C Programming, Sapne (2000).
5. S. Kochan, Programming in C. CBS Publicshers& Distributors, Delhi (1991).