

**SARDAR PATEL UNIVERSITY**  
**Bachelor of Computer Application**  
**Semester – I**  
**US01CBCA21 : Programming Fundamental Using C**  
**(w.e.f June 2018)**

**Credits : 4**

**Lectures per week : 4**

**All units carry equal weightage.**

**Unit 1. Concept of Algorithm, Flowchart and Languages**

- Concept of an algorithm and a flow chart, need and definition
- Symbols used to draw a flow chart
- Typical (primitive) examples of flow charts and algorithms
- Generations of computer languages
- High-level and low-level languages
- Translators
- Introduction to editors and details about one of the editors

**Unit 2. Basics of Programming**

- History and Importance of C
- Basic Structure of C Programming
- Variables and Constant
- Data types in a high-level language
- User Defined Type declaration-Typedef
- Operators and Expressions & its type conversion
- Formatted I/O statements, Assignment statements

**Unit 3. Decision Making, Looping and Arrays**

- Decision making and Branching Statement
- Decision making and looping statement
- Arrays

**Unit 4. Strings and Library Functions**

- Introduction
- Declaring and Initializing String
- Arithmetic operations on Characters
- String Handling Functions
- Common standard library function

**MAIN REFERENCE BOOKS:**

1. Balagurusami: **Programming in ANSI C., Tata McGraw Hill Publication.**
2. Kernighan B., Ritchie D.: **The C Programming Language, Prentice Hall.**
3. Cooper H. & Mullish H: **The Sprit of C, Jaico Publication House, New Delhi**