

VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT
M.Sc. (I.T.) [Five Years Integrated Course]
B.Sc. (Information Technology)
2nd Semester Syllabus

Effective From July-2003

Paper No : 202
Paper Title : “C” Programming.

[L : 4, P : 0 Hrs]

1. Introduction

- 1.1. Language
- 1.2. Language Structure
- 1.3. Various options of Compiler

2. Constants & Variables

- 2.1. Character Set
- 2.2. Constants - needs & definition
- 2.3. Variables - needs & definition

3. Expressions & Operations

- 3.1. Operators
- 3.2. Expression
- 3.3. Evaluation & Assignment of Expression
- 3.4. Elementary built-in functions.

4. Input & Output Functions

5. Jumping, Branching & Looping Statements

6. String & Mathematical Built-in functions

7. User Defined Functions

- 7.1. Call by value & by reference
- 7.2. Passing Structures & Arrays
- 7.3. Recursion

8. Program Structure

- 8.1. Storage Classes
- 8.2. Automatic Variables
- 8.3. External (Global) Variables.
- 8.4. Static Variables.

9. Array

- 9.1. Defining & Processing an Array.
- 9.2. Passing Arrays to a Function
- 9.3. Multidimensional Arrays.

10. Pointers

- 10.1. Pointers and Memory Storage
- 10.2. Operations on Pointers
- 10.3. Arrays of Pointers, Pointer to Array
- 10.4. Passing pointers to functions
- 10.5. I/O statements related to file

11. Structure & Union

12. Data files

- 12.1. Opening and Closing a File.
- 12.2. Creating a Data File.
- 12.3. Processing a Data File.
- 12.4. Unformatted Data File.

Main Readings:

- | | | |
|---------------------------|---------------------|-------|
| 1. C Language Programming | - Byron Gottfried | - TMH |
| 2. Programming in C | - Balaguruswami | - TMH |
| 3. Let Us "C" | - Yashwant Kanitkar | - BPB |

Supplementary Readings:

- | | | |
|-----------------------------|-------------------------|--------------|
| 1. Pointers in "C" | - Yashwant Kanitkar | - BPB |
| 2. "C" Programming Language | - Kernighan & Ritchie | - TMH |
| 3. The Spirit of "C" | - Cooper H. & Mullah H. | - JAICO Pub. |
| 4. Programming in "C" | - Stephan Kochan | - CBS |
| 5. Mastering Turbo "C" | - Kelly & Bootle | - BPB |
| 6. Mastering Turbo "C" | - Stan Kelly | - BPB |