

# COURSE CODE: COSK 401

## SYLLABUS FOR THE COMPUTER SKILLS-II (A)

(Compulsory for the 4<sup>th</sup> semester B.Sc. General Programme in the Semester System)

### C AND SHELL PROGRAMMING BASICS: THEORY

**Marks: 60** (48 Marks for End Semester and 12 Marks for Internal Assessment)

#### **Unit 1: Introduction to 'C' Language**

**Marks:4, Classes:4**

Basics of Dev-C editor, Character set, Variables and Identifiers, Built-in Data Types, Variable Definition. Arithmetic operators and Expressions, Constants and Literals, Simple assignment statement, Basic input/output statement, Simple 'C' programs.

#### **Unit 2: Conditional Statements and Loops**

**Marks:6, Classes:5**

Decision making within a program, conditions, Relational Operators, Logical Connectives .if statement, if-else statement ,Loops: while loop, do while, for loop, Nested loops, Infinite loops, Switch statement, Simple C Programs.

#### **Unit 3: Arrays**

**Marks:5, Classes:5**

One dimensional arrays: Naming and Declaring Arrays, Initializing Arrays, Multidimensional Arrays, Initializing Multidimensional Arrays, Simple C programs to Implement Arrays.

#### **Unit 4: Strings**

**Marks:6, Classes:5**

Initialization of strings, Reading Strings from user input, String Functions, Simple C programs to Implement String Functions.

#### **Unit 5: Functions**

**Marks:6, Classes:5**

Arguments/Actual Parameters, Parameters/Formal Parameters/Dummy Parameters, Global and local variables, Passing Parameters to a Function, Call by value and call by reference, recursion, Simple C programs.

#### **Unit 6: Structures and Storage Class**

**Marks:7, Classes:6**

Structure variables, initialization, structure assignment, nested structure, structures and functions, structures and arrays, storage class concepts, Simple C programs to implement structure and storage classes.

#### **Unit 7: Pointers and File Processing**

**Marks:7, Classes:5**

Pointer Definition, Initialization of pointer, Pointers and arrays, Concept of Files, File opening in various modes and closing of a file, Reading from a file, Writing onto a file , Simple C programs on Pointers and Files.

#### **Unit: 8: Shell Programming**

**Marks:7, Classes:5**

Concept of Kernel and Shell. Simple Shell Programs.

#### **RECOMMENDED BOOKS**

1. C Programming Language (2<sup>nd</sup> Edition) *Brian W.Kernighan, Dennis M. Ritchie*
2. Practical Approach to C and Shell Programming, *Rizwan Rehman,Sadiq Hussain & Gunadeep Chetia, Mahaveer Publicatons.*
3. Programming with C, *Byron Gottfried*, Schaum's Uotline Series, Mc Graw Hill Book Co.
4. Let Us C, *Yashwant Kanitkar,BPB Publications*
5. Programming in C, *C.E. Baslaguruswamy*, Mc Graw Hill Book Co.

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**COURSE CODE: COSK 402**

**SYLLABUS FOR THE  
COMPUTER SKILLS-II (B)**

**(Compulsory for the 4<sup>th</sup> Semester B.Sc. General Programme in the Semester System)**

**C AND SHELL PROGRAMMES: PRACTICAL**

**Marks: 40** (32Marks for End Semester and 8 Marks for Internal Assessment)

**Total Classes: 20**

C and Shell Programs.

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