B.Com II Year – III Semester
Department of Commerce and Business Management, Kakatiya University, Warangal
BC307: Programming with C (for B.Com (CA) only)

Max. Marks: 80UE+20IA

UNIT-I: INTRODUCTION TO C LANGUAGE, DATA TYPES AND I/O OPERATIONS:
Introduction: Types of Languages – History of C language – Basic Structure – Creating – Compiling - Linking and Executing the C Program - Pre-processors in "C". Types and I/O operations: Keywords & Identifiers – Constants – Variables - Scope and Life of a Variable - Data types - Storage classes - Reading a character or values - Writing a character or value - Formatted Input and Output operations.

UNIT-II: OPERATORS, EXPRESSIONS AND DECISION MAKING: Operators: Introduction – Arithmetic – Relational – Logical – Assignment - Conditional - Special operators – Expressions: Arithmetic – Evaluation - Type conversions. Decision Making & Looping: Introduction - If statements - If-else statements - Switch statements - Conditional statements - While statements - Do statements - For Statements.

UNIT-III: ARRAYS AND STRINGS: Arrays: Introduction - Defining an array - Initializing an array - One dimensional array – Two dimensional array - Dynamic array. Strings: Introduction - Declaring and initializing string variables - Reading and Writing strings - String handling functions.

UNIT-IV: BUILT-IN FUNCTIONS AND USER-DEFINED FUNCTIONS: Built–in functions: Mathematical functions - String functions - Character functions - Date functions. User defined functions: Introduction - Need for user defined functions - Elements of functions - Return values and their types - Function declaration - Function calls - Recursive functions.

UNIT-V: STRUCTURES AND POINTERS: Structures: Introduction - Declaring structures variables - Accessing structure members - Functions and Structures - Array of structures - Enumerated Data types - Introduction to Unions. Pointers: Fundamentals - Understanding pointers - Address - Declaration of Pointers. LAB: PROGRAMS USING C.

SUGGESTED BOOKS:
1. Programming in ANSCI C: Balaguruswamy, McGraw Hill.
2. Programming in C: Ashok Kamthane, Pearson.
3. C How to Program: P.J. Deitel& H.M. Deitel, Pearson & PHI.
4. Programming in C: K.S. Kahlon, Kalyani Publishers.
5. Fundamental of C: Dr. N. Guruprasad, Himalaya Publishing House.
6. C: Learning and Building Business and System Applications: Susant Rout, PHI.
7. Mastering C: K.R. Venugopal, McGraw Hill.
8. Programming in C: J.B. Dixit, Firewal Media.