KURUKSHETRA UNIVERSITY KURUKSHETRA
Course: B.Sc. (Hons) IT
Semester-III
Paper Code: BSIT -306
Nomenclature:- Computer Programming with C – I

Max. Marks: 40+10*
Time: 3hrs.

Unit-I
Introduction: History of C, Importance of C, C Character Set, Identifiers & Keywords, data types, Qualifiers, Constants & Variables and their declarations, Symbolic Constants, Comments in C, expressions & statements, Structure of a C Program, Console I/O (printf, scanf). Escape Sequences.

Unit-II

Operators in C: Arithmetic, logical, relational & bitwise operators, Assignment and Conditional Operators, Increment and Decrement Operators, operator hierarchy & associativity. sizeof operator, Type conversion and cast operator, Library functions in C.
Decision Making in C: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder, Programming examples using if Structure.

Unit-III
Decision Making in C: Switch statement, goto statement. Programming examples using switch and goto Structures.
Looping in C: While, do-while & for loops, break & continue statements, Programming examples using loop Structures.

Unit-IV
Arrays: 1-D & 2-D arrays, Creating and Processing Arrays, Applications of arrays in searching, sorting, merging & matrices. Character I/O functions: getchar(), getche(), getch(), putchar().

Reference Books:
1.   Programming with C, Tata McGraw Hill, by Byron Gottfied.
2.   Let Us C, BPB publications, by YashwantKanetkar.
3.   C The Complete Reference, Tata McGraw Hill, by Herbert Schildt.
4.   Programming in ANSI C, Tata McGraw Hill, by E. Balagurusamy.

Note:
1. Syllabus in each Theory Paper is divided in 4 units.
   I.   A Student is required to attempt 5 questions in all.
   II.   Question No 1 is compulsory, consisting of short answer type questions based on all the 4 units.
   III. Two questions will be set from each unit. A student is required to attempt one question from each unit.
   IV. All questions carry equal marks.
2. Use of simple calculator is permissible.
3. Instructions should be imparted using SI system of units. Familiarity with CGS system of units should also be ensured.
4. Distribution of Marks: 40+10.
   * Each theory question paper will be of 40 marks of 3 hours duration and 10 marks in each theory paper are to be awarded through internal assessment in each semester.
5. Work load – 3 periods per week per theory paper