

## I BCA – II Semester

### C Lab

1. Summation of series
  - a) Sin(x)
  - b) Cos(x)
  - c) Exp(x) (Comparison with built in functions)
2. String manipulation
  - d. Counting the no of vowels, consonants, words, white spaces in a line of text and array of lines.
  - e. Reverse a string and check for palindrome.
  - f. Substring detection, council, removal.
  - d. Finding and replacing substrings.
3. Recursion
  - a) nPr, nCr
  - b) GCD of two numbers.
  - c) Fibonocai sequence.
  - d) Maximum and Minimum
  - e) Towers of Hanoi.
4. Matrix Manipulation
  - f) Addition and Subtraction
  - g) Multiplication
  - h) Transpose and Trace of a Matrix
  - i) Determinant of a Matrix
5. Sorting and Searching
  - j) Insertion Sort
  - k) Bubble sort
  - l) Linear search
  - m) Binary search