Computer Engineering Department ,S.V.N.I.T. Surat. B Tech (CO) –IInd Year semester-III

Course: Data Structures CO203

Assignment-3

1) **Note: Write all the program logic/functions in the user-defined header file "mystring.h". Your user-defined function should work similarly to the in built function of the library header file string.h.**

1. Write a program to find the length of a given string.
2. Write a program to concat two given strings.
3. Write a program to copy one string to another string.
4. Write a program to compare two given strings.
5. Write a program to search for the first occurrence of the character 'c' in the given string.
6. Write a program to find substring is there in given string or not?
7. Write a program to generate the reverse of a string.
8. Write a program to replace all vowels with star (*) and consonants with hash (#) of string.

2) Create an array named **AUTO** which stores random elements ranging from 250-350 which denotes the number of automobiles sold during the last 30 years.

   a) Write a program to
   - i) Insert one element in the beginning of an array and print the original and modified array.
   - ii) Insert one element in the end of an array and print the original and modified array.
   - iii) Insert one element at the 'pth' position of an array and print the original and modified array.

   b) Write a program to
   - i) Delete an element from the beginning of an array and print the original and modified array.
   - ii) Delete the last element of an array and print the original and modified array.
   - iii) Delete the element at the 'pth' position of an array and print the original and modified array.

c) Write a program to update the value at the 'pth' position with new value.
d) Write a program to print the index during which more than 300 automobiles were sold.
e) Write a program to print each index and corresponding number of automobiles sold.