## String related problems (Total 15 questions)

| SL | Problem statement   |                   | Difficulty levels |
|----|---|-------------------|-------------------|
| 1. | Write a program in C to find the length of a string without using any library function. |                   | *                 |
|    | Sample Input  | Sample Output     |                   |
|    | "My name is andy"   | 15                |                   |
|    | "Abc 123 7&*&*"   | 13                |                   |
| 2. | Write a program in C to concatenate two strings without using any library function.     |                   |                   |
|    | Sample Input  | Sample Output     |                   |
|    | "My name " "is andy"  | "My name is andy" |                   |
|    | "123abc"<br>"*A*B"  | "123abc*A*B"      |                   |
| 3. | Write a program in C to count how many vowels are there in a string.                    |                   | *                 |
|    | Sample Input  | Sample Output     |                   |
|    | "My name is andy"   | 4                 |                   |
|    | "Are you READY yet?"  | 7                 |                   |
| 4. | Write a program in C to count the number of words in a string.                          |                   |                   |
|    | Sample Input  | Sample Output     |                   |
|    | "My name is andy"   | 4                 |                   |
|    | "Abc 123 7&*&*"   | 3                 |                   |
| 5. | Write a program in C to find the reverse of a string.                                   |                   | **                |
|    | Sample Input  | Sample Output     |                   |
|    | "My name is Andy"   | "ydnA si eman yM" |                   |

|     | "Abc 123 7&*&*"  | "*&*&7 321 cbA"       |    |
|-----|--|-----------------------|----|
| 6.  | Write a program in C to convert lowercase string to uppercase.                                   |                       | *  |
|     | Sample Input   | Sample Output         | ]  |
|     | "My name is andy"  | "MY NAME IS ANDY"     | 1  |
|     | "& I am 20 years old"  | "& I AM 20 YEARS OLD" | ]  |
| 7.  | Write a program in C to toggle the case of each character in a string.                           |                       |    |
|     | Sample Input   | Sample Output         | ]  |
|     | "My name is Andy"  | "mY NAME IS aNDY"     | 1  |
|     | "& I am 20 Years old"  | "& i AM 20 yEARS OLD" | 1  |
| 8.  | Write a program in C to sort a string array in alphabetic order.                                 |                       |    |
|     | Sample Input   | Sample Output         | ]  |
|     | "My name is Andy"  | " AMadeimnnsyy"       |    |
|     | "Abc 123 7&*&*"  | " &&**1237Abc"        | 1  |
| 9.  | Write a program in C to count the occurrences of a character in a string regardless of its case. |                       |    |
|     | Sample Input   | Sample Output         | ]  |
|     | "My name is Andy" 'a'  | 2                     |    |
|     | "WELCOME to CSE, everyone"  'E'  | 6                     |    |
| 10. | Write a program in C to check whether a string is a palindrome or not.                           |                       |    |
|     | Sample Input   | Sample Output         | ]  |
|     | "My name is andy"  | no                    |    |
|     | "madam"  | yes                   | 1  |
| 11. | Write a program in C to add the digits in a string   | ·<br>·                | ** |

|  | Sample Input  | Sample Output               |     |
|--|---|-----------------------------|-----|
|  | "I am 20 years old"   | 2                           |     |
|  | "Abc 123 7&*&*"   | 13                          |     |
| 12.  | Write a program in C to count occurrences of a word in a string.    |                             |     |
|  | Sample Input  | Sample Output               |     |
|  | "I liked the story about the sad giant" "the"                       | 2                           |     |
|  | "It is what it is"<br>"it"  | 1                           |     |
| 13.  | Write a program in C to remove all repeated characters in a string. |                             |     |
|  | Sample Input  | Sample Output               |     |
|  | "i like programming in C"   | "i lkeprogamnC"             |     |
|  | "My name is Andy"   | "My nameisAd"               |     |
| 14.  | Write a program in C to find the maximum occur                      | ring character in a string. | *** |
|  | Sample Input  | Sample Output               |     |
|  | "Welcome to CSE"  | E (or e)                    |     |
|  | "mmmttssarrrddd"  | D (or d)                    |     |
|  | "mmmttssarrrDDd"  | D (or d)                    |     |
| 15. Write a program in C to reverse the words in a string. |   |                             | *** |
|  | Sample Input  | Sample Output               |     |
|  | "My name is Andy"   | "Andy is name My"           |     |
|  | "Abc 123 7&*&*"   | "7&*&* 123 Abc"             |     |