**Problem 22.1**

Convert the following strings into appropriate numeric variables. Hint: you have to call ato\* functions.

1. “0”
2. “3.14159”
3. “21 PGECHS”
4. “PGECHS 21”
5. “PGECHS21”
6. “3..14159”
7. “.987”
8. "124z3yu87"
9. "-3.4" – convert to integer
10. “e24.5”

**Problem 22.2**

Allocate memory for a string (say myString) of 15 charactecrs and assign “new string” to it. Print the string and its address. Now, try the following options:

1. Change the string to “another string” using assignment operator.
2. Change the string to “another string” using strcpy.

Note down (by printing the address stored in myString pointer) whether the address changes in both cases or not.

1. Now, reallocate the memory of 20 characters to myString and assign “somewhat long string”.
2. Delete the memory allocted to string using free()

**Problem 22.3**

Input your registration number from user in the format “FA16-BCS-123”. Now use strtok function to print student’s start semester, program and roll number on separate lines.

**Problem 22.4**

Splicing a string means to cut out the portion of string between a start and an end point. So, for example, if the input is “hello, world!” and the splice start and end values are 2 and 5 respectively, your program should output “llo”. Notice that the starting index (2 in our example) is included in the splice but the ending index (5 in our example) is not. Assume that the length of the string will be less than 50.

Write a function which receives a string, a ‘splice start’ and a ‘splice end’ parameters and ‘splices’ the string from ‘splice start’ upto ‘splice end’. If ‘splice end’ is 0, ‘splice’ the string from ‘splice start’ to the end of string. Note that you should dynamically allocate memory of appropriate size to output string.