November 29, 2017 Wednesday

Lab 12

Pointers and Dynamic Memory Management in C

Marks:5

Question 01:

Write a program in C to find the largest element using Dynamic Memory Allocation.

Input total number of elements (1 to 50): 6
Number 1: 4
Number 2: 7
Number 3: 1
Number 4: 19
Number 5: 0
Number 6: 8
Output: The largest number is 19

Question 02:

Write a C program to read elements in a matrix and check whether the given matrix is symmetric matrix or not using 2d dynamic allocation.

Question 03:

Find sum of 'n' elements where n is the value provided by user. Perform this task by calloc() and malloc(). Discuss the difference and your observation regarding the answer.

Question 04:

Write a C program to check whether a matrix is a lower triangular matrix. Print the lower triangular matrix (you have to use 2d dynamic allocation).

Question 05:

Find error!

a.

```
void myfunc(char param){
++param;}
int main(){
 char string = (char*)malloc(64);
 strcpy(string, "hello_World");
 myfunc(&string);
 myfunc(&string);
 printf("%s\n", string);
 return 0; }
```

b.

```
int main(){

const char* foo = "wow";
foo = "top";
foo[0] = 1;

return 0;}
```

c.

```
 int main() {
 char source[10];
 int i;
 strcpy(source, "0123456789");
 char *dest = (char *)malloc(strlen(source));
for ( i=1; i <= 11; i++) {
 dest[i] = source[i];
 }
 dest[i] = '\0';
 printf("dest = %c", dest); }
```