**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!

1. 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; }

1. int main(){

const char\* foo = "wow";

foo = "top";

foo[0] = 1;

return 0;}

1. 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); }