**Variable Scope and Storage Specifier Assignments**

1. Refer the code snippet below and answer the queries

int val;

extern void display();

static int function()

{

val++;

int x = 10;

int i = 0;

static int j = 20;

for (; i < 3; i++)

{

int x = 20;

printf(“\n %d”, x+i);

x+=3;

j++;

display();

}

return val;

}

int main(int argc, char \*argv[])

{

val= 0;

function();

return 0;

}

a. What is the change required if val declaration line below is to be moved to an other file?

A. Make it extern int val; in current file and int val; in the other file.

b. What is the value of x after for loop execution?

A. After for loop execution value of x will be 10, because outside loop the x is initialized to 10.

c. What does the keyword static in following lines mean?

A. static int function() – The function can only be accessed in the current file.

static int j = 20; -- the variable retains its value between function calls.

d. What is the value of j after for loop execution?

A. j= 23

e. Identify the variables which would be in the stack of function()

A. x, i, j

f. What does extern in the following line mean?

A. extern void display();

extern keyword helps to include modules or files taken from another file.

Here, display( ) function is taken from some other file.