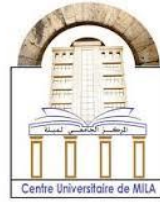# Test 1 : Correction

Exercise 1 :(10pts)

1- 1=true, 0=false (0.25).
2- i) An address with 8 bytes is reserved for the variable a. (0.5)
   ii) The value 10 is converted to binarry and stored in this address. (0.5)
3- 4 (here 4 denotes 4 bytes) (0.5)
4- The sources of this error are :
   -The variable is not declared. (0.5)
   -The variable is declared outside its scope. (0.5)
5- Error, due to the function return type is void and is not returned a value. (01)
6- The statement gives:
   -The value which is returned by the function. (0.25)
   -The address of the function in memory. (0.75)
7- i) **Index** : indicates the position of the element within the array. (0.5)
   ii)**Contiguous memory** : is defined as a series of consecutive and arranged blocks of memory addresses that have the same storage size. (0.75)
8- Yes, the expression is correct. (0.5)
9- 4*8=32 the statement display : 32 (bytes). (0.75)
10-The two roles of pointer are:
   i) Storing the addresses of variables. (0.5)
   ii)Accessing the data of variables. (0.5)
11-This due to the non-initialized pointer remains pointing to a random address in memory. (0.5)
12-We know that *(pc+1)+=2 ➤*(pc+1)= *(pc+1)+2 then the progrm gives
   8   (0.75)
   1   (0.5)

Exercise 2 :(4pts)

```c
#include <stdio.h>
void swap(int a, int b)
{
    int temp;................................(0.5)
    temp=a; ................................(0.5)
    a=b; ...................................(0.5)
    b=temp; ................................(0.5)
    printf("%d%d",a,b); ..............(0.5)
}
int main()
{
int num, c, d;
printf("Enter your number:\n");
scanf("%d", &num);
c=num/10; ...............................(0.5)
d=num%10; ..............................(0.5)
swap(c,d); ...............................(0.5)

    return 0;
}
```