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المادة: البرمجة

الامتحانات الرسمية لشهادة البكالوريا الفنية
حل دورة عام ٢٠٢٢ الأولى

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المعدل (18)

1. Which character always ends a statement?

a) }
b) .
c) ;
d) :

2. We consider two arrays T1 and T2. Can we copy the contents of T2 into T1 without losing information?

a) Directly if T1 and T2 are the same size? We use the instruction T1 = T2;
b) Directly if the size of T1 is greater than the size of T2? We use the assignment TI=T2;
c). Directly if the size of T2 is greater than the size of T1? We use the assignment T1=T2;
d) Element by element using a loop as soon as the size of T1 is >= the size of T2?

3-To access the third cell of the Map vector, use the instruction:

a) Map[3]
b) Map [2];
c) Map {2}:
d) Map {3}:

4. What do the following instructions display:

```
int i=10;
while (i>0) {
        i=i-4;
        printf("%d",i);
}
```

a) 1 0 6 2
b) 6 2 -2
c) 6 2
d) It is an infinite loop

5. If the number of iterations is known, it is advisable to use:

a) while...
b) do... while
c) for...
d) loop

6-Which of the following is not a valid variable name statement?

a)int a_7;
b) int _a7;
c) int 7_a;
d) int A_7;

7. What data type can store 15.9635?

a) char
b) long
c) float
d) int

8. In a if structure...

a) The parentheses surrounding the logical condition are mandatory
b)The "else" keyword is mandatory
c)The condition, stated just after if, is followed by a semicolon.
d)all answers

9. What data type can store -15?

a) char
b) long
c) float
d) int

10. How many times can we pass the following loop?

for (counter=2; counter <9; counter +=2)
a) 4
b) 5
c) 6
d) 7

II-Write in C language a program that calculates the sum of N

Nis the number of strictly positive terms given by the keyboard. following sequence: 1, 2, 4, 7, 11, 16, 22..... N. (3 pts)

If N=5 S=1+2+4+7+11.

➔Solution

```
#include <stdio.h>
int main(){
int N, i , a=1 , s=0;
do{
    scanf("%d",&N);
}while(N<=0);
for (i=1;i<=N;i++) {
    s = s+a;
    a = a+i;
    }
printf("%d\n",s);
}
```

III- Write a program in C language which allows you to:

a. Create a one-dimensional array TAB1 containing 7 integers.

b. Fill in the array TABI with integers between 1 and 10.

c. Display the elements of the array TAB1 upside down.

d. Display the indexes of odd numbers existing in this array.

e. Display the least even number existing in this array.

f. Create from array TAB1 another array T as follow:

If the array TAB1 contains an even number, we put (0) in the same place in T

If the array TAB1 contains an odd number, we put (1) in the same place in T.

Example:

➔array TAB1

2	4	6	3	7	8	5

➔Array T

0	0	0	1	1	0	1

➔Solution

```
#include <stdio.h>
int main(){
a)
int TAB1[7],i,min,T[7];
b)
for (i=0;i<7;i++)
     do{
          scanf("%d",&TAB1[i]);
     } while(TAB1[i]<1 ||TAB1[i]>10);
c)
for (i=6;i>=0;i--)
     printf("%d\t".TAB1[i]);
d)
for (i=0;i<n;i++)
     if (TAB1[i]%2 != 0)
          printf("%d\t");
e)
min=11;
for (i=0;i<n;i++)
     if (TAB1[i] %2 == 0 && TAB1[i] <min)
          min=TABI[i];
if (min!=11)
     printf("%d\n",min);
else
     printf("No even\n");
f)
for (i=0;i<n;i++)
     if(TAB1[i]%2==0)
          T[i]=0;
     else
          T[i]=0;
     }
}
```