## TCS Ninja Programming MCQ's (previously asked)

### 1) How many times the below loop will be executed?

```
#include<stdio.h>
int main()
{
int x, y;
for(x=5;x>=1;x--)
{
for(y=1;y<=x;y++)
printf("%dn",y);
} }
```

A. 15

B. 11

C. 10

D. 13

**Solution: Option A**

---

### 2) Where are the local variables stored?

A. Disk

B. Stack

C. Heap

D. Code

**Solution: Option B**

---

**3) Which datatype has more precision?**

A. double

B. float

C. int

D. long int

---

**4) Find the output of the following code?**

```
int main
{
float f = 0.1;
if (f = 0.1)
printf (yes);
else print (no);
}
```

---

**5) What will happen if in a C program you assign a value to an array element whose subscript exceeds the size ofarray?**

A. The element will be set to 0.

B. The compiler would report an error.

C. The program may crash if some important data gets overwritten.

D. The array size would appropriately grow.

**Solution: Option C**

**Explanation:**If the index of the array size is exceeded, the program will crash. Hence "option c" is the correct answer. But the modern compilers will take care of this kind of errors.

---

**6) What does the following declaration mean?**

**int (*ptr)[10];**

A. ptr is array of pointers to 10 integers

B. ptr is a pointer to an array of 10 integers

C. ptr is an array of 10 integers

D. ptr is an pointer to array

**Solution: Option B**

---

**7) In C, if you pass an array as an argument to a function, what actually gets passed?**

A. Value of elements in array

B. First element of the array

C. Base address of the array

D. Address of the last element of array

**Solution: Option C**

**Explanation:**The statement 'C' is correct. When we pass an array as a function argument, the base address of the array will be passed.

---

**8) What will be the output of the program?**

```
#include<stdio.h>
int main()
{
  int a[5] = {5, 1, 15, 20, 25};
  int i, j, m;
  i = ++a[1];
  j = a[1]++;
  m = a[i++];
  printf("%d, %d, %d", i, j, m);
  return 0;
}
```

A. 2, 1, 15

B. 1, 2, 5

C. 3, 2, 15

D. 2, 3, 20

**Solution: Option C**

**Explanation:**

Step 1: int a[5] = {5, 1, 15, 20, 25}; The variable arr is declared as an integer array with a size of 5 and it is initiapzed to

a[0] = 5, a[1] = 1, a[2] = 15, a[3] = 20, a[4] = 25 .

Step 2: int i, j, m; The variable i,j,m are declared as an integer type.

Step 3: i = ++a[1]; becomes i = ++1; Hence i = 2 and a[1] = 2

Step 4: j = a[1]++; becomes j = 2++; Hence j = 2 and a[1] = 3.

Step 5: m = a[i++]; becomes m = a[2]; Hence m = 15 and i is incremented by 1(i++ means 2++ so i=3)

Step 6: printf("%d, %d, %d", i, j, m); It prints the value of the variables i, j, m

Hence the output of the program is 3, 2, 15

---

**9) Is there any difference in the following declarations?**

int fun(int arr[]);

int fun(int arr[2]);

A. Yes

B. No

**Solution: Option B**

**Explanation:**No, both the statements are the same. It is the prototype for the function fun() that accepts one integer array as a parameter and returns an integer value.

---

**10) Are the expressions arr and &arr same for an array of 10 integers?**

A.Yes

B.No

**Solution: Option B**

**Explanation:**Both mean two different things. arr gives the address of the first int, whereas the &arr gives the address ofarrayof ints.

---

**11) Which of the flowing statements should be used to obtain a remainder after dividing 3.14 by 2.1?**

A. rem = 3.14 % 2.1;

B. rem = modf(3.14, 2.1);

C. rem = fmod(3.14, 2.1);

D. Remainder cannot be obtain in floating point division.

**Solution: Option C**

**Explanation:**

fmod(x,y) - Calculates x modulo y, the remainder of x/y.

This function is the same as the modulus operator. But fmod() performs floating point divisions.

---

**12) What are the types of packages?**

A. Internal and External

B. External, Internal and None

C. External and None

D. Internal

**Solution: Option B**

---

**13) Which of the following special symbols are allowed in a variable name?**

A. * (asterisk)

B. | (pipepne)

C. -(hyphen)

D. _(underscore)

**Solution: Option D**

**Explanation:** Variable names in C are made up of letters (upper and lower case) and digits. The underscore character ("_") is also permitted. Names must not begin with a digit.

---

**14) Is there any difference between following declarations?**

1 : extern int fun();

2 : int fun();

A. Both are identical

B. No difference, except extern int fun(); is probably in another file

C. int fun(); is overrided with extern int fun();

D. None of these

**Answer: Option B**

**Explanation:** extern int fun(); declaration in C is to indicate the existence of a global function and it is defined externally to the current module or in another file.

int fun(); declaration in C is to indicate the existence of a function inside the current module or in the same file.