TCS Ninja programming MCQ's with answers

TCS Ninja programming MCQ's are discussed below with answers. TCS Ninja programming MCQ's cover basic topics in C. It is easy to answer these questions if you are conceptually strong in C programming. Below are some of the TCS Ninja programming MCQ's asked in previous TCS exams.

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TCS Ninja Programming MCQ's

TCS Ninja mock test – Programming MCQ's (Standard)

1)

```
#include<stdio.h>
int main(int argc, char ** argv)
{
char **items;
int j = 3, i;
items = argv;
```

```
for(i = 1; (i%4); i++)
-
```

```
j–;
}
return 0;
}
```

The above code is run with three command line parameters mentioned below:

Paper Ink Pen

What will be the output of the above program?

1. PIP
2. Pen
3. Pap
4. Ink

Answer: a

2) Improper formation of which of the following data-structures can cause un-intentional looping of a program that uses it.

2. Linked list
3. Array
4. Queue
5. Stack

Answer: Linked list

3) What is the data type that occupies the least storage in "C" language?

Please give the answer in the blank line: _____

Answer: char

a. Array is a dynamic data structure whose size can be changed while stacks are static data structures whose sizes are fixed.

b. Array elements can be accessed and modified(elements can be added or removed) only at the ends of the array while any elements of the stack can be accessed or modified randomly through their indices.

c. An array can have elements of different data types.

d. Elements of a linked-list can be accessed only sequentially.

Answer: d

5) Which of the following statements is FALSE?

a. The time complexity of binary search is O(log n).

b. A linear search requires a sorted list.

c. A binary search can operate only on a sorted list.

d. The time complexity of linear search is O(n).

Answer: b

6) Eesha wrote a function fact( ) in "C" language to calculate factorial of a given number and saved the file as fact.c. She forgot to code the main function to call this fact function. Will she be able to compile this fact.c without the main() function?

a. Yes, she can compile provided the compiler option -nostrict-checking is enabled.

b. No, she can not compile as main function is required to compile any C program file.

c. Yes, she can compile as main( ) is not required at compile time.

d. Yes, she can compile and run as the system will supply default values to fact function.

Answer: b

7) The difference between variable declaration and variable definition is:

a. Declaration and definition are the same. There is no difference.

b. A declaration is used for variables and definitions is used for functions.

c. Declaration associates type to the variable whereas definition associates scope to the

Answer: d

TCS Ninja Mock test Questions – Programming Concepts (Advanced Section)

1) The inorder and preorder traversal of a binary tree are **d b e a f c g** and **a b d e c f g**, respectively. The post-order traversal of the binary tree is:

a. d e b f g c a

b. d e f g b c a

c. e d b f g c a

d. e d b g f c a

Answer: a

2) Eesha wrote a recursive function that takes the first node in a linked list as an argument, reverses the list, returning the first Node in the result. The pseudo code for this function is given below. However, she did not get the correct result. In which line number did she make a mistake?

Please give the answer in the blank line: _____

```
public Node  reverse(Node first)
{
if (first == null)   return null;
if (first.next == null)   return first;
Node second = first.next;
Node rest  = reverse (second);
```

second.next = first;

Answer: return next

3) The longest common subsequence (LCS) problem is the problem of finding the longest subsequence common to a set of sequences (often just two sequences). A subsequence is a sequence that can be derived from another sequence by deleting some or no elements without changing the order of the remaining elements. One form of implementation of LCS function is given below. The function takes as input sequences X[1...m] and Y[1...n], computes the length of the Longest common subsequence between X[1..i] and Y[1..j] for all $1 \leq i \leq m$ and $1 \leq j \leq n$, and stores it in C[i,j]. C[m,n] will contain the length of the LCS of X and Y.

```
function LCSLength(X[1..m], Y[1..n])
C = array(0..m, 0..n)
for i:= 0..m
C[i,0] =0
for j := 0..n
C[0,j] = 0d
for i := 1..m
for j := 1..n
if X[i]  =  Y[j]
C[i,j] := C[i-1, j-1] + 1
else
C[i,j] := max(C[i, j-1], C[i-1, j])
return C[m, n]
```

Eesha used the above algorithm to calculate the LCS length between "kitten" and "string". What was the result she got? Please give the answer in the blank line. _____

 Answer: 2

TCS Ninja Programming MCQ's (previously asked)

#include

int main()

{

int x, y;

for(x=5;x>=1;x−)

{

for(y=1;y<=x;y++)

printf("%d\n",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

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 of array?

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?

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
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.

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 int 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 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 of array of ints.

11) Which of the fplowing 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);

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 pnkages?

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 fplowing declarations?

1 : extern int fun();

2 : int fun();

A. Both are identical

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.

Practice TCS Ninja Coding questions