

TCS Technical & Coding

1. What will be the data type returned for the following C function?

- a) char
- b) int
- c) double
- d) multiple type-casting in return is illegal

Answer: b

2. What will be the output of the following C code?

- a) Before memmove place= string1, src = string2 After memmove place = string2,src = string2
- b) Before memmove place = string2, src = string2 After memmove place= string1,src = string2
- c) Before memmove place = string2, src = string1 After memmove place= string2,src =string2
- d) Before memmove place= string1, src = string2 After memmove place=string1,src = string1

Answer: a

Explanation: In the C library function `void *memmove(void *str1, const void *str2, size_t n)` copies n characters from str2 to str1.

3. Which of the header file is used to implement algorithms provided by C++ STL?

- a) <algorithm>
- b) <header>
- c) <algorithms>
- d) <Algorithm>

Answer: a

Explanation: <algorithm> header is provided by the C++ to use STL algorithms.

4. Pick out the compound assignment statement.

- a) `a = a - 5`

- b) `a = a / b`
- c) `a -= 5`
- d) `a = a + 5`

Answer: c

Explanation: When we want to modify the value of a variable by performing an operation on the value currently stored, We will use compound assignment statement. In this option, `a -= 5` is equal to `a = a - 5`.

5. Which method do we use to append more than one character at a time?

- a) `append`
- b) `operator+=`
- c) `data`
- d) both `append` & `operator+=`

Answer: d

Explanation: C++ allows to append more characters to string using both inbuilt `append()` function and using operator overloaded `+=` operator.

6. Which of these is an incorrect array declaration?

- a) `int arr[] = new int[5]`
- b) `int [] arr = new int[5]`
- c) `int arr[] = new int[5]`
- d) `int arr[] = int [5] new`

Answer: d

Explanation: Operator `new` must be succeeded by array type and array size.

7. In the following Java code, which code fragment should be inserted at line 3 so that the output will be: "123abc 123abc"?

- a) `sb1.append("abc"); s1.append("abc");`
- b) `sb1.append("abc"); s1.concat("abc");`
- c) `sb1.concat("abc"); s1.append("abc");`

d) `sb1.append("abc"); s1 = s1.concat("abc");`

Answer: d

Explanation: `append()` is stringbuffer method and `concat` is String class method.

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8. What are the dimensions of an incidence matrix?

a) Number of edges*number of edges

b) Number of edges*number of vertices

c) Number of vertices*number of vertices

d) Number of edges * ($1/2$ * number of vertices)

Answer: b

Explanation: Columns may represent edges and vertices may be represented by the rows.

9. The essential condition which is checked before deletion in a linked queue is?

a) Underflow

b) Overflow

c) Front value

d) Rear value

Answer: a

Explanation: To check whether there is element in the list or not.

10. Which one of the following data structures are preferred in database-system implementation?

a) AVL tree

b) B-tree

c) B+ -tree

d) Splay tree

Answer: c

Explanation: The database-system implementations use B+ -tree data structure

because they can be used for multilevel indexing.

11. The C code 'for(;;)' represents an infinite loop. It can be terminated by

-
- a) break
 - b) exit(0)
 - c) abort()
 - d) terminate

Answer: a

12. What are the advantages of passing arguments by reference?

- a) Changes to parameter values within the function also affect the original arguments
- b) There is need to copy parameter values (i.e. less memory used)
- c) There is no need to call constructors for parameters (i.e. faster)
- d) All of the mentioned

Answer: d

Explanation: All the above mentioned are advantages and properties of call by reference.

13. Thread priority in Java is?

- a) Integer
- b) Float
- c) double
- d) long

Answer: a

Explanation: Java assigns to each thread a priority that determines how that thread should be treated with respect to others. Thread priority is integers that specify relative priority of one thread to another.

14. While evaluating a prefix expression, the string is read from?

- a) left to right
- b) right to left
- c) center to right
- d) center to left to right

Answer: b

Explanation: The string is read from right to left because a prefix string has operands to its right side.

15. Which is used to describe the function using placeholder types?

- a) template parameters
- b) template type parameters
- c) template type
- d) type parameters

Answer: b

Explanation: During runtime, We can choose the appropriate type for the function and it is called as template type parameters.

16. Which one of the following is correct syntax for opening a file.

- a) FILE *fopen(const *filename, const char *mode)
- b) FILE *fopen(const *filename)
- c) FILE *open(const *filename, const char *mode)
- d) FILE open(const*filename)

Answer: a

Explanation: fopen() opens the named file, and returns a stream, or NULL if the attempt fails.

17. Which header file is required to use any container?

- a) <any>
- b) <stl>

c) <container-any>

d) <containers>

Answer: a

Explanation: <any> header file is required to use any container and its related functions.

18. What is the remaining capacity of BlockingQueue whose intrinsic capacity is not defined?

a) Integer.MAX_VALUE

b) BigDecimal.MAX_VALUE

c) 999999999

d) Integer.INFINITY <https://www.freshersnow.com/placement-papers-download/>

Answer: a

Explanation: A BlockingQueue without any intrinsic capacity constraints always reports a remaining capacity of Integer.MAX_VALUE.

19. What will be the result if the given stack is popped?

|t|

|a|

|p|

a) pat

b) tap

c) atp

d) apt

Answer: b

Explanation: The word 'pat' is pushed on to the stack. When the characters of the stack are popped one by one, the word 'tap' is obtained.

20. What will be the output of the following Java program?

```
class Output
```

```

{
    public static void main(string args[])
    {
        ArrayList obj=new ArrayList();
        obj.add("A");
        obj.add("D");
        obj.ensureCapacity("3");
        obj.trimToSize();
        System.out.println(obj.size());
    }
}

```

a) 1

b) 2

c) 3

d) 4

Answer: b

Explanation: trimToSize() is used to reduce the size of the array that underlines an ArrayList object.

Output:

```
$javac Output.java
```

```
$javac Output
```

```
2
```