

Started on	Friday, 6 September 2019, 6:52 AM
State	Finished
Completed on	Friday, 6 September 2019, 6:53 AM
Time taken	52 secs
Grade	0.00 out of 25.00 (0%)

Question **1**  
Not answered  
Marked out of 1.00

197. The function given below computes the factorial of the number "n" entered by a user. What should be the "MISSING STATEMENT" in order to make the code work properly?

```
Function factorial(n)
{
  If (n equals 1)
    Return 1
  Else
    --MISSING STATEMENT --
  End
}
```

Select one:

- ☐ a. return n\*(n-1)
- ☐ b. return n\*factorial(n-1)
- ☐ c. return n\*factorial(n)
- ☐ d. return factorial(n-1)

The correct answer is: return n\*factorial(n-1)

Question **2**  
Not answered  
Marked out of 1.00

195. A sorting mechanism uses the concept such that any number in the tree is larger than all the numbers in the sub-below it. What is this method called?

Select one:

- ☐ a. Selection sort
- ☐ b. Quick sort
- ☐ c. Insertion sort
- ☐ d. Heap sort

The correct answer is: Heap sort

Question **3**  
Not answered  
Marked out of 1.00

199. A function in the base class is redefined in the inherited class. What is the term used to describe this situation?

Select one:

- ☐ a. Overriding
- ☐ b. Overloading
- ☐ c. Encapsulation
- ☐ d. Inheritance

The correct answer is: Overriding

Question **4**

Not answered

Marked out of  
1.00

18. What does the following function do? function operation (int a, int b)

```
{  
  If (a>b)  
  {return operation(b, a)}  
  Else  
  {return a;}  
}
```

Select one:

- ☐ a. Returns the max of (a,b)
- ☐ b. Loops forever
- ☐ c. Returns the min of (a,b)
- ☐ d. Always returns the first parameter

The correct answer is: Returns the min of (a,b)

Question **5**

Not answered

Marked out of  
1.00184. Which of the following sorting algorithms yields approximately the same worst-case and average-case running time behavior in  $O(n \log n)$ ?

Select one:

- ☐ a. Bubble sort and Selection sort
- ☐ b. Heap sort and merge sort
- ☐ c. Tree sort and median- of-3 Quick sort
- ☐ d. Quick sort and radix sort

The correct answer is: Heap sort and merge sort

Question **6**

Not answered

Marked out of  
1.00

187. What will happen if some indentations are made in some statements of a code written in C++?

Select one:

- ☐ a. Better readability of the code
- ☐ b. Faster execution of the code
- ☐ c. Lower memory requirement for the code
- ☐ d. Correction of errors in the code

The correct answer is: Better readability of the code

Question **7**

Not answered

Marked out of  
1.00198. Merge Sort requires  $O(n)$  space when implemented using \_\_\_\_\_ .

Select one:

- ☐ a. Linked List
- ☐ b. Array
- ☐ c. Both Array and Linked List
- ☐ d. Merge Sort can be implemented using constant space irrespective of the implementing data structure

The correct answer is: Linked List

Question **8**

Not answered

Marked out of  
1.00

20. How are protected members of a base class accessed in the derived class when inherited privately in C++?

Select one:

- ☐ a. Protectedly
- ☐ b. Publicly
- ☐ c. Not inherited
- ☐ d. Privately

The correct answer is: Privately

Question **9**

Not answered

Marked out of  
1.00

189. How can a call to an overloaded function be ambiguous?

Select one:

- ☐ a. There might be two or more functions with the same name
- ☐ b. There might be two or more functions with equality appropriate signature
- ☐ c. None of the above
- ☐ d. The name of the function might have been misspelled

The correct answer is: There might be two or more functions with equality appropriate signature

Question **10**

Not answered

Marked out of  
1.00

19. What is the average time required to perform a successful sequential search for an element in an array A(1: n)?

Select one:

- ☐ a.  $(n+1)/2$
- ☐ b.  $\log_2 n$
- ☐ c.  $n^2$
- ☐ d.  $n(n+1)/2$

The correct answer is:  $(n+1)/2$

Question **11**

Not answered

Marked out of  
1.00

196. Which of the following items may or may not have its methods' implementations?

Select one:

- ☐ a. Abstract Class
- ☐ b. Anonymous Class
- ☐ c. Interface
- ☐ d. Generic Class

The correct answer is: Abstract Class

Question **12**

Not answered

Marked out of  
1.00

183. Which of the following data structures may produce an overflow error even though the current number of elements in it is lower than its size?

Select one:

- ☐ a. A queue implemented in a linear array
- ☐ b. A queue implemented in a circularly connected array
- ☐ c. A stack implemented in a linear array
- ☐ d. None of the above

The correct answer is: A queue implemented in a linear array

Question **13**

Not answered

Marked out of  
1.00

181. For the given list of numbers, how many swaps will take place in Bubble Sort so that the list becomes sorted? (Assume that the list is being sorted in ascending order) List 23, 56, 78, 3, 11, 65

Select one:

- ☐ a. 4
- ☐ b. 7
- ☐ c. 6
- ☐ d. 5

The correct answer is: 7

Question **14**

Not answered

Marked out of  
1.00

186. Refer to the pseudocode given in the 'Passage'. The code is similar to that in C++ and is self-explanatory. An accessible member Function and a data member for an object are accessed by the statements objectname. Functionname and objectname. datamembername, respectively. Which statement should be deleted from the code to rectify the error in it?

```
Class brush
{
  Private:
  Integer size, c
  rcode
  function getdata () {.....} //statement 1
  public :
  integer name // statement 2
  function putdata() {.....}
}
function main
{
  Brush b1, b2
  Print b1.name //statement 3
  B2. Getdata() // statement 4
}
```

Select one:

- ☐ a. Statement 4
- ☐ b. Statement 2
- ☐ c. Statement 1
- ☐ d. Statement 3

The correct answer is: Statement 4

Question **15**

Not answered

Marked out of  
1.00

182. A programmer mistakenly writes "gor" instead of the keyword "for" used in loops, while writing a program in C++. What will this result in?

Select one:

- ☐ a. The code would give an error while execution.
- ☐ b. The code would not compile.
- ☐ c. The code may work for some inputs and not for the others.
- ☐ d. The code would not create any problem.

The correct answer is: The code would not compile.

Question **16**

Not answered

Marked out of  
1.00

193. A pseudo-code is used which is self explanatory. What will be the output generated when the given code is executed?

```
function main ()
{
integer a=5, b=7
switch(a)
{
case 5:print"i am 5"
break
case b:print"i am not 5"
break
default: print "i am different"
}
}
```

Select one:

- ☐ a. I am not 5
- ☐ b. I am 5
- ☐ c. This code will generate an error
- ☐ d. Iam different

The correct answer is: This code will generate an error

Question **17**

Not answered

Marked out of  
1.00

185. For which of the following is the stack implementation useful?

Select one:

- ☐ a. None of the above
- ☐ b. Recursion
- ☐ c. Breadth first search
- ☐ d. Radix search

The correct answer is: Recursion

Question **18**

Not answered

Marked out of  
1.00

188. \_\_\_\_\_ returns a value unlike \_\_\_\_\_.

Select one:

- ☐ a. Procedure, Subroutine
- ☐ b. Function, Procedure
- ☐ c. Function, Method
- ☐ d. Procedure, Function

The correct answer is: Function, Procedure

Question **19**

Not answered

Marked out of  
1.00180. How many nodes does a full tree with  $n$  non-leaf nodes contain?

Select one:

- ☐ a.  $n + 1$
- ☐ b.  $2n$
- ☐ c.  $\log n$
- ☐ d.  $2n + 1$

The correct answer is:  $2n + 1$ Question **20**

Not answered

Marked out of  
1.00

192. Which of the following abstract data types can be used to represent a many-to-many relation?

Select one:

- ☐ a. Stack
- ☐ b. Graph
- ☐ c. Tree
- ☐ d. Queue

The correct answer is: Graph

Question **21**

Not answered

Marked out of  
1.00

2. A complete binary tree has a property that the value at each node is at least as large as the values at its children nodes. What is this binary tree known as?

Select one:

- ☐ a. AVL Tree
- ☐ b. Heap
- ☐ c. Binary Search Tree
- ☐ d. Completely Balanced Tree

The correct answer is: Heap

Question **22**

Not answered

Marked out of  
1.00

190. In har graph, Yelena has included 10 nodes. Which of the following options will help her know if there exists a path between node 4 and node 9?

Select one:

- ☐ a. Topological Sort
- ☐ b. Eulerian Tour
- ☐ c. Floyd-Warshall's algorithm
- ☐ d. Best First Search

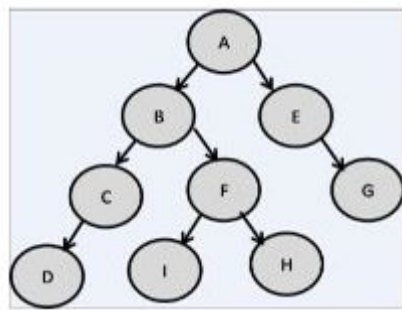
The correct answer is: Topological Sort

Question **23**

Not answered

Marked out of  
1.00

194. What will be the Postorder traversal of the given Binary tree?



Select one:

- ☐ a. DCIFBGEA
- ☐ b. DEBIFHAEG
- ☐ c. ABCDFIHGE
- ☐ d. DCIHFBGEA

The correct answer is: DCIHFBGEA

Question **24**

Not answered

Marked out of  
1.00

200. A programmer writes a program to find an element in the array A[5] with the elements: 8 30 40 45 70. The program is run to find a number  $\hat{x}$ , that is found in the first iteration of binary search. What is the value of  $\hat{x}$  ?

Select one:

- ☐ a. 40
- ☐ b. 30
- ☐ c. 70
- ☐ d. 8

The correct answer is: 40

Question **25**

Not answered

Marked out of  
1.00

191. What does the following function do?

```
function operation (int a, int b)
{
    if (a>b)
    { return operation(b, a) }
    else
    { return a; }
}
```

Select one:

- ☐ a. Returns the min of (a,b)
- ☐ b. Loops forever
- ☐ c. Always returns the first parameter
- ☐ d. Returns the max of (a, b)

The correct answer is: Returns the min of (a,b)

[◀ Tech test 4](#)[Tech Test 6 ▶](#)