Dashboard / My courses / SANK MPHASIS / COMPUTER PROGRAMMING / Tech Test 10

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Completed on	Friday, 6 September 2019, 6:55 AM
Time taken	28 secs
Grade	**0.00** out of 25.00 (**0**%)

Question **1**

Not answered

Marked out of 1.00

81. Refer to the pseudocode given in the "Passage". The code is similar to that in C++ and is self-explanatory. An accessible member Funcction and a data member for an object are accessed by the statements objectname. Functionname and objectname. Datamemnername, respectively. What can be inferred from this code?

```
class rocket
{
private:
integer height. Weight
 public: // Statement 1
 function input( int a, int b)
{
height = a;
weight =b
 }
}
function main ( )
 {
rocket rocket1, rocket2
 }
```

Select one:

○ a. "rocket" is a class with "rocket1" and "rocket2", "height" and "weight" as its objects.

○ b. "rocket" is a class with "rocket1" and "rocket2", "height" and "weight" as its attributes.

○ c. "rocket" is a class with "rocket1" and "rocket2" as its objects, with "height" and "weight" as its attributes.

○ d. "rocket" is a class with "rocket1" and "rocket2" as its objects, with "height" and "weight" as its objects.

The correct answer is: "rocket" is a class with "rocket1" and "rocket2" as its objects, with "height" and "weight" as its attributes.

Question **2**

Not answered

Marked out of 1.00

82. In which of the following situations can a constructor be invoked?

Select one:

○ a. When an object is assigned the value 0

○ b. Only at the end of the code

○ c. When the scope of the object is over

○ d. When an object is created

The correct answer is: When an object is created

Question 3

Not answered

Marked out of 1.00

70. How can the largest number in a list of twenty numbers be found?

Select one:

- a. Implement one iteration of selection sort for descending order and print the first number in the series
- b. Use selection sort to sort the list in a descending order and the print the first number of the series
- c. Use bubble sort to sort the list in a descending order and the print the first number of the series
- d. None of the above

The correct answer is: Implement one iteration of selection sort for descending order and print the first number in the series

Question 4

Not answered

Marked out of 1.00

79. Passage. Choose the correct answer: A pseudo-code is used which is self explanatory. What will be the output of the given code?

```
function main()
{
static integer abc = 5
print abc—
if ( abc )
main() // calling main function
}
```

Select one:

- a. This code will generate an error
- b. This code will enter an infinite loop
- c. 43210
- d. 54321

The correct answer is: 54321

Question 5

Not answered

Marked out of 1.00

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

Select one:

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

The correct answer is: Better readability of the code.

Question 6

Not answered

Marked out of 1.00

7. A queue is implemented as a singly linked-list. Each node has an element and a pointer to another node.
The Rear and the Front contain the addresses of the rear and the front nodes, respectively.
What can be inferred about the linked list if the condition (rear isequal front) is true?

Select one:

- a. It has no elements
- b. None of the above
- c. It has one element
- d. There is an error

The correct answer is: It has one element

Question 7

Not answered

Marked out of 1.00

72. How many nodes does a full binary tree with "n" leaves contain?

Select one:

○ a. log2n nodes

○ b. 2n + 1 nodes

○ c. 2n - 1 nodes

○ d. 2n nodes

The correct answer is: 2n - 1 nodes

Question 8

Not answered

Marked out of 1.00

90. How may nodes does a full binary tree with ìnî non-leaf nodes contain?

Select one:

○ a. log n

○ b. 2n

○ c. 2n + 1

○ d. n + 1

The correct answer is: 2n + 1

Question 9

Not answered

Marked out of 1.00

69. A language has 28 different letters in total. Each word in the language consists of a maximum of 7 letters.
A programmer wants to create a data type to store a word of this language. She decides to store the word as an array of letters.
How many bits should she assign to the data type to store all kinds of words of the language?

Select one:

○ a. 196

○ b. 35

○ c. 7

○ d. 28

The correct answer is: 35

Question 10

Not answered

Marked out of 1.00

76. What will the output of the following pseudo code statements be? (Note: Assume that when two data types are processed through an operator, the answer maintains the same data type as that of the input. Also, all data types have enough range to accommodate any number. If two different data types are operated upon, the result assumes the data type that is more expressive.) Integer a = 456, b, c, d = 10 b = a/d c = a - b print c

Select one:

○ a. 411.4

○ b. 411

○ c. 410.4

○ d. 410

The correct answer is: 411

Question 11

Not answered

Marked out of 1.00

73. 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 andobjectname. datamembername, respectively. Which statement should be deleted from the code to rectify the error in it ?

Select one:

○ a. Statement 4

○ b. Statement 2

○ c. Statement 1

○ d. Statement 3

The correct answer is: Statement 4

Question 12

Not answered

Marked out of 1.00

85. Consider the structure of a queue as given below ñ
FRONT = 2, REAR = 4
Queue: _, L, M, N, _
What will be the values of FRONT and REAR respectively after the insertion of an element ëQí in the given queue?

Select one:

○ a. 1,4

○ b. 1,5

○ c. 2,4

○ d. 2,5

The correct answer is: 2,5

Question 13

Not answered

Marked out of 1.00

89. The following operations are performed on an empty R "A". PUSH(1) PUSH(2) POP PUSH(5) PUSH(6) POP What will the stack contain after these operations? (Note: The top of the stack is underlined in the options below.)

Select one:

○ a. 5 6

○ b. 1 5

○ c. 1 5

○ d. 5 6

The correct answer is: 1 5

Question 14

Not answered

Marked out of 1.00

87. A programmer wants the program given below to print the largest number out of three numbers entered by the user.

int number1, number 2, number 3, temp;
input number 1, number 2, number 3;
if (number1>number2)
temp = number 1
else
temp = number 2
end if
if (??) // Statement 1
temp = number 3
end if
print temp

Which of the following should be substituted in place of ì??î in Statement 1 in the code?

Select one:
- ○ a. number3> number1
- ○ b. number3> temp
- ○ c. number3> number2
- ○ d. number3> temp

The correct answer is: number3> temp

Question 15

Not answered

Marked out of 1.00

80. The function given below takes an even integer "n" as the input and calculates the sum of first "n" even natural numbers. The function is called by the statement "sum (30)". How many times will the function "sum" be called to compute the sum?

```
function sum(n)
{
 if (n equals 2)
return 2
else
return(n + sum(n-2))
end
}
```

Select one:
- ○ a. 16
- ○ b. 30
- ○ c. 15
- ○ d. 1

The correct answer is: 15

Question 16

Not answered

Marked out of
1.00

9. Passage. A pseudo-coed is used which is self explanatory. What will be the output of the given code?

```
functionmyfunc()

{

constant integer i=5

if (i> 3)

print "i am smali"

if ( i-- > 5 )

print "i am iarge"

eise print "i am different"

}
```

Select one:

○   a. This code will generate an error

○   b. I am small

○   c. I am small am large

○   d. I am small am different

The correct answer is: This code will generate an error

Question 17

Not answered

Marked out of
1.00

77. The function given below takes a number 'n' as the input and calculates the sum of first 'n' natural numbers. Which of the following statements should be inserted in place of '??' to get the required output?

```
function sum(n)
{
if (??)
return 1
else
return (n + sum(n-1))
end
}
```

Select one:

○   a. n>

○   b. 1

○   c. n equals 1

○   d. n>1

○   e. n equals 2

The correct answers are: n equals 1, 1

Question **18**

Not answered

Marked out of 1.00

74. The following values are to be stored in a hash Table-15,22,41,19,102,18,37
Using the division method of hashing with a table size of 10 (use sequential method of resolving collision),give the contents of Hash Table.

Select one:

- a. Null,41,22,102,Null, 15,Null, 37,18,19
- b. 41,22,102,15,37,18,19,Null, Null, Null
- c. Null, Null, Null,41,22,102,15,37,18,19
- d. 41,22,102,15,37,18,19

The correct answer is: Null,41,22,102,Null, 15,Null, 37,18,19

Question **19**

Not answered

Marked out of 1.00

84. In an implementation of a linked list, each node contains data and address. Which of the following can the address field possibly contain?

Select one:

- a. Address of the first node
- b. Address of the next node in sequence
- c. Address of the last node
- d. Its own address

The correct answer is: Address of the next node in sequence

Question **20**

Not answered

Marked out of 1.00

8.Consider the code given below. Assume that 'a' and 'b' are passed reference. What will the output of the program be when the function calculate() is executed? function modify(b,a)

```
function modify(b,a)
{
return a – b
}
function calculate ()
{
Integer a = 5, b = 12, c
c = modify(a,b);
print c
}
```

Select one:

- a. 8
- b. Error
- c. -7
- d. 7

The correct answer is: 7

Question **21**

Not answered

Marked out of 1.00

88. Consider a binary tree implementation. The root address is stored in the vatiable root. The address of a node is given in the variable node. The value of the node

and its right and

left child nodes can be accessed usina the statements given below.

node -> value,

node -> right,

node -> left.

A programmer writes the function given in the ëPassageí to do a preorder traversal of the tree.

What are Condition X and Condition Y ?

Select one:

○   a. Condition X: node -> right isequal
Condition Y: node -> left isequal

○   b. Condition X: node -> left isequal
Condition Y: node -> right isequal

○   c. Condition X: node -> right isnotequal
Condition Y: node -> left isnotequal

○   d. Condition X: node -> left isnotequal
Condition Y: node -> right isnotequal

The correct answer is: Condition X: node -> left isnotequal
Condition Y: node -> right isnotequal

Question **22**

Not answered

Marked out of 1.00

86. Which of the following can be inherited by a derived class from a base class?

Select one:

○   a. Data members

○   b. Member functions

○   c. Data members and member functions

○   d. Constructors and destructors

The correct answer is: Data members and member functions

Question **23**

Not answered

Marked out of 1.00

67. What is the output of the pseudocode statements given below?

(Note: Assume that when two data types are processed through an operator, the answer maintains the same data type as that of the input.

Also, all data types have enough range to accommodate any number. If two different data types are operated upon, the result assumes the data type that is more expressive.)

integer a=984, b=10

float c

c = a / b

print c

Select one:

○   a. Error

○   b. 98.4

○   c. 98

○   d. 984

The correct answer is: 98

Question **24**

Not answered

Marked out of 1.00

71. A programmer writes an efficient program to sum two square diagonal matrices (matrices with elements only on the diagonal positions).
The size of each matrix is nXn. What is the time complexity of the algorithm?

Select one:

- a. O(n*log(n))
- b. O(n2)
- c. None of the above
- d. O(n)

The correct answer is: O(n)

Question **25**

Not answered

Marked out of 1.00

78. Which of the following implies that there are two loops that are nested?

Select one:
- a. Two loops, one after the other
- b. Two loops, one inside the other
- c. Two loop with the same iteration count
- d. One loop with two different iteration counts

The correct answer is: Two loops, one inside the other

◄ Tech test 9

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