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Grade	**0.00** out of 25.00 (**0**%)

Question **1**

Not answered

Marked out of 1.00

147. Which tree (s) from the given figure is/are Heap(s)?

Select one:

- a. Only 1
- b. Only 3
- c. Both 1 and 3
- d. Only 2
- e. Both 1 and 2

The correct answer is: Both 1 and 2

Question **2**

Not answered

Marked out of 1.00

136. X and Y are asked to write a program to sum the rows of a 2X2 matrix stored in an array A.
X writes the code (Code A) as follows:
For n = 0 to 1
sumRow1 [n] = A[n][1] + A[n][2]
end
Y writes the code (Code b) as follows:
Sum Row1[0] =A[0][1] + A[0][2]
Sum Row1[1] = A[1][1] + A[1][2]
Which of the following statements is correct about these codes if no loop unrolling is done by the compiler?

Select one:

- a. Code B would execute faster than Code A.
- b. Code A would execute faster than Code B.
- c. Code B is logically incorrect.
- d. Code A is logically incorrect.

The correct answer is: Code B would execute faster than Code A.

Question **3**

Not answered

Marked out of 1.00

138. For the given list of numbers, how many awaps 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. 6
- b. 7
- c. 4
- d. 5

The correct answer is: 7

Question **4**

Not answered

Marked out of 1.00

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

Select one:

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

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

Question **5**

Not answered

Marked out of 1.00

150. 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
temd = 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> number2
- b. number3> temp
- c. number3> temp
- d. number3> number1

The correct answer is: number3> temp

Question **6**

Not answered

Marked out of 1.00

143. The program to print the sum of all cubes that lie between 0 and 100 is given below. Does this program have an error? If yes, which statement should be modified to correct the program?

```
integer i = 0,a  // Statement 1
integer sum = 0;
a = (i * i * i)
while (1<100) // Statement 2
{
sum = sum + a // Statement 3
i = i + 1
a = (i * i * i )  // Statement 4
}
Print sum
```

Select one:

- a. Statement 1
- b. Statement 2
- c. Statement 4
- d. Statement 3
- e. No error

The correct answer is: Statement 2

Question **7**

Not answered

Marked out of 1.00

134. What is the maximum number of edges in an undirected graph with ìnî vertices?

Select one:

- a. n*(n+1)/2
- b. 2*n
- c. n*(n-1)/2
- d. n*n

The correct answer is: n*(n-1)/2

Question **8**

Not answered

Marked out of 1.00

154. 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 **9**

Not answered

Marked out of 1.00

142. Reema wanted to multiply two numbers but the * key of her keyboard is broken. She decides to write the program without using * operator. She writes the given code,
where some statements are missing.
What should be the missing statements in the given code?

Select one:

- a. num1
- b. While(k++ < num2)
final+
- c. num1
- d. num2
- e. While(k++ < num2)
final+
- f. num1
- g. While(k++ < num1)
final+
- h. While(k++ < num2-1)
final+

The correct answers are: num1, num1, While(k++ < num2)
final+, num1, num2

Question **10**

Not answered

Marked out of 1.00

133. Which of the following is NOT a data type?

Select one:

- a. Array
- b. Character
- c. Boolean
- d. Integer

The correct answer is: Array

Question **11**

Not answered

Marked out of 1.00

152. A programmer prepares a questionnaire with ìtrue or falseî type of questions. He wants o define a data type that stores the responses of the candidates for the
questions. Which of the following is the most suited data type for this purpose?

Select one:

- a. Float
- b. character
- c. Integer
- d. Boolean

The correct answer is: Boolean

Question **12**

Not answered

Marked out of 1.00

145. A developer writes the program given below to print the sum of the squares of the first five whole numbers(0Ö4). Is the program correct? If not, which statement
should be modified to correct the program?
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Select one:

- a. Statement 4
- b. Statement 6
- c. No error, the program is correct
- d. Statement 1

The correct answer is: Statement 4

Question **13**

Not answered

Marked out of 1.00

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

Select one:

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

The correct answer is: Heap sort

Question **14**

Not answered

Marked out of 1.00

148. Refer to the pseudocode given in the ëPassageí. 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. datamemnername, respectively. Identify the statement with an error.

Select one:

- a. Statement 1
- b. Statement 4
- c. None of the above
- d. Statement 2
- e. Statement 3

The correct answer is: Statement 3

Question **15**

Not answered

Marked out of 1.00

140. A programmer is making a dase of animais in a zoo along with their properties. The possible animals are dog, lion and zebra. Each one has attributes herbivors,
colorand nocturnal.
The programmer uses the object-oriented programming paradigm for this. How will the system be conceptualized?

Select one:

- a. Class: dog, lion and zebra; objects: Animal; data members: herbivorous, color and nocturnal
- b. H. None of the above
- c. Class: Animal; objects: herbivorous, color and nocturnal; data members: dog, lion and zebra
- d. Class: Animal; objects: dog, lion and zebra; data members: herbivorous, color and nocturnal

The correct answer is: Class: Animal; objects: dog, lion and zebra; data members: herbivorous, color and nocturnal

Question **16**

Not answered

Marked out of 1.00

141. Which of the following gives the maximum number of nodes at level :Ií of a binary tree? (Note: The root is at level 1.)

Select one:

- a. 2I
- b. 2I -1
- c. 2I-1
- d. 3I-1

The correct answer is: 2I

Question **17**

Not answered

Marked out of 1.00

151. Which of the following options is not an instance of exponential complexities?

Select one:

- a. O(n3)
- b. O(nn)
- c. O(n!)
- d. O(2n)

The correct answer is: O(n!)

Question **18**

Not answered

Marked out of 1.00

14. Passage Function print_me(integer n) // Statement 1 A pseudo-code is used which is self explanatory, Pooja has written the following code to print numbers from 0 to n in reverse order using the recursive approach. Find if there exists any error in the given code.

Select one:

- a. There is no error
- b. Statement 1
- c. Statement 3
- d. Statement 2

The correct answer is: Statement 2

Question **19**

Not answered

Marked out of 1.00

155. A sorting algorithm traverses through a list, comparing adjacent elements and switching them under certain conditions. What is this sorting algorithm called?

Select one:

- a. Heap sort
- b. Insertion sort
- c. Quick sort
- d. Bubble sort

The correct answer is: Bubble sort

Question **20**

Not answered

Marked out of 1.00

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

Select one:

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

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

Question **21**

Not answered

Marked out of 1.00

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

Select one:

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

The correct answer is: Recursion

Question **22**

Not answered

Marked out of 1.00

149. Consider the code given in the ëPassageí. Assume that ìaî and ìbî are passed by value. What will the output of the program be when the function calculate () is
executed?

Select one:

- a. 10 -5
- b. 6 -5
- c. 11 -5
- d. 5 -5

The correct answer is: 5 -5

Question **23**

Not answered

Marked out of 1.00

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

Select one:

- a. There might be two or more functions with equally appropriate signatures
- b. There might be two or more functions with the same name
- 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 equally appropriate signatures

Question **24**

Not answered

Marked out of 1.00

137. A programmer tries to debug a code of 10,000 lines. It is known that there is a logical error in the first 25 lines of the code. Which of the following is an
efficient way to debug the code?

Select one:

- a. Use an interpreter on the first 25lines of code.
- b. Compile the entire code and run it.
- c. None of the above can be used to debug the code.
- d. Compile the entire code and check it line by line.

The correct answer is: Use an interpreter on the first 25lines of code.

Question **25**

Not answered

Marked out of 1.00

139. Which of the following sorting algorithms yields approximately the same worst-case and average-case running time behavior in O(n logn)?

Select one:

- a. Heap sort and Merge sort
- b. Quick sort and Radix sort
- c. Tree sort and Median-of-3 Quick sort
- d. Bubble sort and Selection sort

The correct answer is: Heap sort and Merge sort

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