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

Question **1**

Not answered

Marked out of 1.00

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

Select one:

  ○ a. Stack

  ○ b. Tree

  ○ c. Queue

  ○ d. Graph

The correct answer is: Graph

Question **2**

Not answered

Marked out of 1.00

111. The following operations are performed on an empty stack ìAî.
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. 1 5

  ○ b. 5 6

  ○ c. 5 6

  ○ d. 1 5

The correct answer is: 1 5

Question **3**

Not answered

Marked out of 1.00

131. Preeti writes a program in low level language, now she wants to translate it into a higher language without rewriting the program. What another program she must use
for this purpose?

Select one:

  ○ a. Compiler

  ○ b. Interpreter

  ○ c. Executer

  ○ d. Decompiler

  ○ e. Cross compiler

The correct answer is: Compiler

Question 4

Not answered

Marked out of 1.00

121. Which of the following is the lowest level format to which the computer converts a program in a higher language before execution?

Select one:

   ○   a. Machine code

   ○   b. System language

   ○   c. Assembly language

   ○   d. English code

The correct answer is: Machine code

Question 5

Not answered

Marked out of 1.00

112. 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

123. A developer writes the program given below to print the sum of the squares of the first five whole numbers(0...4). Is the program correct? If not, which statement should be modified to correct the program?

```
integer i = 0 // Statement 1
integer sum =  0 // Statement 2
while (i<5) // Statement 3
{
sum = i*i // Statement 4
i = i + 1 // Statement 5
}
print sum // statement 6
```

Select one:

   ○   a. No error, the program is correct

   ○   b. Statement 6

   ○   c. Statement 1

   ○   d. Statement 4

The correct answer is: Statement 4

Question 7

Not answered

Marked out of 1.00

116. A problem to be solved is broken into a sequence of smaller sub-problems until a stage where the sub-problem can be easlved. What is this design approach called?

Select one:

   ○   a. Top-Down approach

   ○   b. Bottom-Up approach

   ○   c. None of the above

   ○   d. Procedural programming

The correct answer is: Top-Down approach

Question 8

Not answered

Marked out of 1.00

124. 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 4

  ○   b. Statement 3

  ○   c. Statement 1

  ○   d. Statement 2

  ○   e. No error

The correct answer is: No error

Question 9

Not answered

Marked out of 1.00

125. A programmer writes the program given in the 'Passage' to print the following pattern on the screen: 1 12 123 Will this program function properly? If not, which statement should be modified?

Select one:

  ○   a. This program will function properly

  ○   b. Statement 2

  ○   c. Statement 4

  ○   d. Statement 3

  ○   e. Statement 1

The correct answer is: Statement 2

Question 10

Not answered

Marked out of 1.00

128. What is implied by the argument of a function?

Select one:

  ○   a. The execution code inside function

  ○   b. The variables passed to the function when it is called

  ○   c. The value that the function returns on execution

  ○   d. Return type of the function

The correct answer is: The variables passed to the function when it is called

Question **11** Not answered Marked out of 1.00	127. An Array MyArr with 10 rows and 15 columns is stored in a row major fashion in the memory. Given that the starting address of MyArr is 1000 and each elementís size is 1, find the address of MyArr[6][11]. (Assume the lower bounds on columns and rows of this Array as 1 and 1 respectively)

Select one:

- ○ a. 1160
- ○ b. 1105
- ○ c. 1085
- ○ d. 1060

The correct answer is: 1060

Question **12** Not answered Marked out of 1.00	130. 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 below it. What is this method called?

Select one:

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

The correct answer is: Heap sort

Question **13** Not answered Marked out of 1.00	118. 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 ìXî, that is found in the first iteration of binary search. What is the value of ìXî?

Select one:

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

The correct answer is: 40

Question **14** Not answered Marked out of 1.00	12. Why is an algorithm designer concerned primarily about the run time and not the compile time while calculating time complexity of an algorithm?

Select one:

- ○ a. Compile time is always more than the run time.
- ○ b. A program needs to be compiled once but can be run several times.
- ○ c. Run time is always more than the compile time.
- ○ d. Compile time is a function of run time.

The correct answer is: A program needs to be compiled once but can be run several times.

Question **15**

Not answered

Marked out of 1.00

129. How many nodes a full binary tree with ìnî leaves contain?

Select one:

○   a. D. 2n nodes

○   b. C. 2n ñ 1 nodes

○   c. B. log2n nodes

○   d. 2n + 1 nodes

The correct answer is: 2n + 1 nodes

Question **16**

Not answered

Marked out of 1.00

109. In the execution process of a program, this technoque involves the intermediate representation to be compiled to native machine code at runtime. What is the name of
this technique?

Select one:

○   a. Run time interpretation

○   b. Static interpretation

○   c. Static compilation

○   d. Just in time compilation

The correct answer is: Just in time compilation

Question **17**

Not answered

Marked out of 1.00

114. A librarian has to rearrange the library books on a shelf in a proper order at the end of each day. Which of the following sorting techniques should be the
librarianís ideal choice?

Select one:

○   a. Selection sort

○   b. Bubble sort

○   c. Insertion sort

○   d. Heap sort

The correct answer is: Insertion sort

Question **18**

Not answered

Marked out of 1.00

122. Refer to the pseudocode given in the ëPassageí. 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. Which statement should be deleted from the code to rectify the error in it?

Select one:

○   a. Statement 1

○   b. Statement 4

○   c. Statement 3

○   d. Statement 2

The correct answer is: Statement 4

Question **19**

Not answered

Marked out of 1.00

120. What is the difference between a function and a method?

Select one:

○ a. Function contained in an object is called a method

○ b. There is no difference between the two

○ c. Function cannot change variables outside its scope unlike method

○ d. Function is a named code unlike method which is a part of an object

The correct answer is: There is no difference between the two

Question **20**

Not answered

Marked out of 1.00

117. A programmer is making a daaase 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. Class: Animal; objects: dog, lion and zebra; data members: herbivorous, color and nocturnal

○ c. None of the above

○ d. Class: Animal; objects: herbivorous, color and nocturnal; data members: dog, lion and zebra

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

Question **21**

Not answered

Marked out of 1.00

110. 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 below it. What is this method
called?

Select one:

○ a. Quick sort

○ b. Insertion sort

○ c. Selection sort

○ d. Heap sort

The correct answer is: Heap sort

Question **22**

Not answered

Marked out of 1.00

132. A programmer prepares a questionnaire with ìtrue or falseî type of questions. He wants to 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. Boolean

○ b. Float

○ c. Character

○ d. Integer

The correct answer is: Boolean

Question **23**

Not answered

Marked out of 1.00

115. Tricha needs to store a list of binary data. Which of the following data types should she use?

Select one:

○ a. Integer

○ b. Character

○ c. Float

○ d. Boolean

The correct answer is: Boolean

Question **24**

Not answered

Marked out of 1.00

11. A tree has 5 levels and each node has either 4 or no children. All nodes on the same level have the same number of children.
How many nodes are there in the tree?

Select one:

○ a. 256

○ b. 1024

○ c. 341

○ d. None of the above

The correct answer is: 256

Question **25**

Not answered

Marked out of 1.00

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

Select one:

○ a. None of the above

○ b. Radix search

○ c. Recursion

○ d. Breadth fist search

The correct answer is: Recursion

◄ Tech test 1

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Tech test 3 ►