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Grade	0.00 out of 25.00 (0%)

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

23. Which of the following options is an exception to being a part of composite date types?

- Select one:
- ☐ a. Union
  - ☐ b. Array
  - ☐ c. Structure
  - ☐ d. Stack

The correct answer is: Structure

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

42. A variable cannot be used? Choose the correct answer

- Select one:
- ☐ a. In the function it is declared in
  - ☐ b. After it is declared
  - ☐ c. Can always be used
  - ☐ d. Before it is declared

The correct answer is: Before it is declared

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

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

- Select one:
- ☐ a. Variables passed to it when it is called
  - ☐ b. The execution code inside it D. Its return type
  - ☐ c. The value is returns on execution

The correct answer is: Variables passed to it when it is called

Question **4**

Not answered

Marked out of  
1.00

26. In which of the following methods is sorting NOT possible?

Select one:

- ☐ a. Deletion
- ☐ b. Exchange
- ☐ c. Selection
- ☐ d. Insertion

The correct answer is: Deletion

Question **5**

Not answered

Marked out of  
1.00

41. How many pointers will have to be changed when a new node is to be added in a linear linked list in the middle?

Select one:

- ☐ a. 1
- ☐ b. 2
- ☐ c. 0
- ☐ d. All the pointers will be changed

The correct answer is: 2

Question **6**

Not answered

Marked out of  
1.00

36. 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. Quick sort
- ☐ b. Insertion sort
- ☐ c. Heap sort
- ☐ d. Bubble sort

The correct answer is: Bubble sort

Question **7**

Not answered

Marked out of  
1.00

28. Choose the correct answer

Q is an empty queue. The following operations are done on it:

ADD 5

ADD 7

ADD 46

DELETE

ADD 13

DELETE

DELETE

ADD 10

What will be the content of Q after these operations. Front is marked by (F) and Rear is marked by (R).

Select one:

- ☐ a. Option 3 : 13(R) 10(F)
- ☐ b. Option 1 : 10(R) 13(F)
- ☐ c. Option 4 : 10(R) 5(F)
- ☐ d. Option 2 : 5(R) 10(F)

The correct answer is: Option 1 : 10(R) 13(F)

Question **8**

Not answered

Marked out of  
1.00

37. What is the space complexity of a program?

Select one:

- ☐ a. Amount of hard-disk space required to store the program
- ☐ b. Amount of memory required by the program to run
- ☐ c. Amount of memory required for the program to compile
- ☐ d. Amount of hard-disk space required to compile the program

The correct answer is: Amount of memory required by the program to run

Question **9**

Not answered

Marked out of  
1.00231. 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 **10**

Not answered

Marked out of  
1.00

229. Two programmers, X and Y, are asked to write a code to evaluate the following expression:

 $a \cdot b + c/(a-b) + (a-b)^2$ 

X writes the following code statements (Code A);

print  $(a-b) + c/(a-b) + (a-b)*(a-b)$ 

Y writes the following code statements (Code B);

d =  $(a-b)$ print  $d + c/d + d*d$ 

Which of the following is TRUE if the time taken to load a value in a variable for addition, multiplication or division between two operands is the same?

Select one:

- ☐ a. Code A uses lesser memory and is faster than Code B
- ☐ b. Code A uses lesser memory and is slower than Code B
- ☐ c. Code A uses lesser memory and is slower than Code B
- ☐ d. Code A uses lesser memory and is faster than Code B

The correct answer is: Code A uses lesser memory and is slower than Code B

Question **11**

Not answered

Marked out of  
1.00

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

Select one:

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

The correct answer is: Boolean

Question **12**

Not answered

Marked out of  
1.00

27. A programmer is making a database of animals in a zoo along with their properties. The possible animals are dog. Lion and zebra each one has attributes as herbivorous. Color and nocturnal. The programmer uses the object- oriented programming paradigm for this. How will the system be conceptualized?

Select one:

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

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

Question **13**

Not answered

Marked out of  
1.00

40. Shalini wants to programme to print the largest number out of 3 inputted numbers. She writes the following programme

```
Int number 1, number 2, number 3, temp;
```

```
Input number 1, number 2, number 3;
```

```
If ( number 1 > number 2)
```

```
Temp = number 1
```

```
Else
```

```
Temp= number 2
```

```
End if
```

```
If ( ??) // statement 1
```

```
Temp = number 3
```

```
End if
```

```
Print temp
```

Fill in the ??in statement 1 ? Choose the correct answer?

Select one:

- ☐ a. Number 3> number 1
- ☐ b. Number 3> temp
- ☐ c. Number 3< temp
- ☐ d. Number 3> number 2

The correct answer is: Number 3> temp

Question **14**

Not answered

Marked out of  
1.00

38. Srishti writes a program to find an element in the array A[5] with the following elements in order: 8 30 40 45 70. She runs the program to find a number X. Xis found in the first iteration of binary search. What is the value of X? Choose the correct answer

Select one:

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

The correct answer is: 40

Question **15**

Not answered

Marked out of  
1.00

25. A sorting algorithm iteratively traverses through a list to exchange the first element with any element less than it. It then repeats with a new first element. What is this sorting algorithm called?

Select one:

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

The correct answer is: Insertion sort

Question **16**

Not answered

Marked out of  
1.00

32. Ravi is writing a program in C++. C++ uses the `for` keyword for loops. Due to distraction Ravi writes `fori` instead of `for`. What will this result to?

Select one:

- ☐ a. It will create no problems.
- ☐ b. The code may work for some inputs and not for others
- ☐ c. The code will not compile
- ☐ d. The code will give an error while in executio

The correct answer is: The code will not compile

Question **17**

Not answered

Marked out of  
1.00

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

The correct answer is: Heap sort and Merge sort

Question **18**

Not answered

Marked out of  
1.00

35. Which of the following statements is true regarding the sorting and searching algorithms?

Select one:

- ☐ a. Linear searching and the most efficient sorting algorithm take up almost same time
- ☐ b. Linear searching is slower than the most efficient sorting algorithm
- ☐ c. Linear searching is faster than the most efficient sorting algorithm
- ☐ d. Their complexities cannot be compared

The correct answer is: Linear searching is slower than the most efficient sorting algorithm

Question **19**

Not answered

Marked out of  
1.00

33. Which of the following sorting algorithm yield approximately the same worst-case and average-case running time behaviour in  $O(n \log n)$ ?

Select one:

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

The correct answer is: Heap sort and Merge sort

Question **20**

Not answered

Marked out of  
1.00

31 Shasi wants to make a program to print the sum of the first 10 multiples of 5. She writes the following program, where statement 5 is missing.

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Which of the following options will you use for statement 5?

Select one:

- ☐ a.  $5 * I$
- ☐ b.  $i$
- ☐ c.  $i$
- ☐ d.  $i + 5$
- ☐ e.  $i$
- ☐ f.  $i$
- ☐ g.  $i + 1$
- ☐ h. 5

The correct answers are: 5,  $5 * I$ ,  $i + 1$ ,  $i$ ,  $i + 5$

Question **21**

Not answered

Marked out of  
1.00

39. Saloni writes the code for a function that takes as input  $n$ , an even integer and calculates the sum of 1st  $n$  natural numbers

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She then calls the function by the statement, `sum(30)`. How many times will the function sum be called to compute this sum? Choose the correct answer?

Select one:

- ☐ a. 1
- ☐ b. 30
- ☐ c. 15
- ☐ d. 16

The correct answer is: 30

Question **22**  
Not answered  
Marked out of 1.00

24. Which characteristic of data does a binary search use and a linear search does not?

Select one:

- ☐ a. Order of the list
- ☐ b. Maximum value of the list
- ☐ c. Length of the list
- ☐ d. None of the above

The correct answer is: Maximum value of the list

Question **23**  
Not answered  
Marked out of 1.00

29. Sruti is making a questionnaire of True-False question. She wants to define a data-type which stores the response of the candidate for the question.  
What is the most suited data type for this purpose?

Select one:

- ☐ a. character
- ☐ b. Boolean
- ☐ c. float
- ☐ d. Integer

The correct answer is: Boolean

Question **24**  
Not answered  
Marked out of 1.00

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

Select one:

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

The correct answer is: Boolean

Question **25**  
Not answered  
Marked out of 1.00

30. Parthiv has included several classes and their subjects in his project. Now he wants to use something that will hold all these objects (of different classes).  
Which of the following options provides him with the best iterative?

Select one:

- ☐ a. Anonymous class
- ☐ b. Final class
- ☐ c. Store them in database
- ☐ d. Generic class

The correct answer is: Generic class