Started on	Friday, 2 February 2024, 11:13 AM
State	Finished
Completed on	Friday, 2 February 2024, 11:27 AM
Time taken	13 mins 48 secs
Grade	**14.00** out of 18.00 (**78**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Select all those that are not non linear data structure from the given options.

- ☐ a. Array
- ☑ b. Graph ✔
- ☐ c. Linked List
- ☑ d. Tree ✔

Your answer is correct.

The correct answers are:
Graph,

Tree

Question **2**

Correct

Mark 1.00 out of 1.00

Search complexity of Binary search is _____.

- ○ a. O(nlog n)
- ○ b. O(n^1)
- ○ c. O(1)
- ○ d. None of these
- ◉ e. O(log n) ✔

Your answer is correct.

The correct answer is:
O(log n)

Question **3**
Correct
Mark 1.00 out of 1.00

Binary search algorithm cannot be applied to _____.

- ○ a. sorted binary trees

- ○ b. sorted linked list

- ○ c. None of these

- ○ d. sorted linear array

- ◉ e. Pointer array ✔

Your answer is correct.

The correct answer is: Pointer array

Question **4**
Incorrect
Mark 0.00 out of 1.00

How much memory does a boolean variable occupy?

- ○ a. 2 Byte

- ◉ b. 1 Byte ✘

- ○ c. 2 Bits

- ○ d. None of these

- ○ e. 1 Bit

Your answer is incorrect.

The correct answer is:
1 Bit

Consider the student records of your class sorted in student id order. How much time it will take to search a student name with student id x.

- a. $O(n)$

- b. $O(1)$

- c. $O(loglogn)$

- d. $O(logn)$ ✔

Your answer is correct.

The correct answer is:

$O(logn)$

Time Complexity of obtaining n rectangles by folding paper once in each operation is?

- a. O(n^1)

- b. O(log n) ✔

- c. None of these

- d. O(nlog n)

- e. O(1)

Your answer is correct.

The correct answer is:
O(log n)

Which of the following statements is/are not correct about Garbage Collection in JAVA?

☐ a. Removes referenced objects from heap memory.

☑ b. It is an automatic process.   ✖

☑ c. It makes memory management efficient.   ✖

☐ d. Process of reclaiming the runtime used memory by destroying the unused objects.

Your answer is incorrect.

The correct answers are:
Removes referenced objects from heap memory.,

Process of reclaiming the runtime used memory by destroying the unused objects.

Which of the following is/are not correct?

◉ a. The total number of uniquely identifiable locations in memory is called the address space.   ✖

◯ b. Each computer instruction consists of sixteen bits divided into four 4-bit fields.

◯ c. 20 bits are needed to address any single word in memory if the computer has 8 MB of memory and each word in this computer is 8 bytes.

◯ d. The operand (s) specifies the type of operation to be performed on the opcode.

Your answer is incorrect.

The correct answer is:
The operand (s) specifies the type of operation to be performed on the opcode.

Which of the following kind of function represent running time of an algorithm?

○ a. Increasing function ✔

○ b. Decreasing function

○ c. Both (a) and (b)

○ d. None (a) and (b)

Your answer is correct.

The correct answer is:
Increasing function

Which of the following are linear data structures?

○ a. Linked List

○ b. Queue

○ c. Stack

◉ d. All of these ✔

○ e. Array

Your answer is correct.

The correct answer is:
All of these

Question **11**

Correct

Mark 1.00 out of 1.00

What does Big Oh notation represents?

- ◉ a. Maximum time required to run a program ✔
- ○ b. Minimum time required to run a program.
- ○ c. Average time required to run a program
- ○ d. None of the above.
- ○ e. All of these

Your answer is correct.

The correct answer is:
Maximum time required to run a program

Question **12**

Correct

Mark 1.00 out of 1.00

In Java the data type *char* is commonly

- ○ a. 8-bit Unicode character
- ◉ b. 16-bit Unicode character ✔
- ○ c. 32-bit Unicode character
- ○ d. 64-bit Unicode character
- ○ e. None of these

Your answer is correct.

The correct answer is:
16-bit Unicode character

Given an array s = {"Gujrat", "Odisha", "Kashmir", "Tamilnadu"}, what shall be output of the code fragment *System.out.println("s = " + Arrays.toString(s));*

○ a. s = [GOKT]

○ b. s = [GujratOdishaKashmirTamilnadu]

◉ c. s = [Gujrat, Odisha, Kashmir, Tamilnadu]   ✔

○ d. s = [G, O, K, T]

Your answer is correct.

The correct answer is:
s = [Gujrat, Odisha, Kashmir, Tamilnadu]

What is the asymptotic relation between functions f = $\sqrt{n}$ and g = $(\log n)^7$?

○ a. f = $\Omega(g)$

◉ b. f = $O(g)$ ✘

○ c. f = $\Theta(g)$

○ d. None of these

Your answer is incorrect.

The correct answer is:
f = $\Omega(g)$

Which of the following asymptotic relation is an equivalence relation?

- ○ a. Θ ✔

- ○ b. ω

- ○ c. All of these

- ○ d. Ω

- ○ e. O

Your answer is correct.

The correct answer is:
Θ

If the complexity of an algorithm is defined as $O(n^2)$, then out of the following notations, which can be used?

- ☐ a. $O(n^1)$

- ☐ b. $O(\log n)$

- ☑ c. $O(n^3)$ ✔

- ☑ d. $O(n^4)$ ✔

Your answer is correct.

The correct answers are: $O(n^3)$,
$O(n^4)$

Question **17**

Correct

Mark 1.00 out of 1.00

Primitive data types are passed by which of the following in Java.

○ a. The variable's pointer is passed

◉ b. Pass by Value   ✔

○ c. Pass by reference

○ d. Both call by value and reference

Your answer is correct.

The correct answer is:
Pass by Value

Question **18**

Correct

Mark 1.00 out of 1.00

String object in java is immutable?

Select one:

◉ True ✔

○ False

The correct answer is 'True'.

Jump to...