

Computer Studies Proficiency Test — Sample Questions

Algorithms

Which Big O notation would represent an algorithm to determine the existence of a target element within a 2-dimensional array/list of values of n columns and n rows of data?

- a. $O(\log n)$
- b. $O(n)$
- c. $O(n \log n)$
- d. $O(n^2)$**

Software Engineering

A boundary condition test involves:

- a. Random input values
- b. Extreme input values**
- c. Performance stress tests
- d. Usability tests

Coding Fundamentals

Examine the following pseudocode.

```
count = 1
while count < 5 do
    count = count * 2
end while
display count
```

Following execution of this code the value stored in count is:

- a. Unknown
- b. 1
- c. 4
- d. 8**

Computer Systems

A terabyte (TB) is approximately _____ bytes.

- a. 1000 - thousand
- b. 1 000 000 - million
- c. 1 000 000 000 – billion
- d. 1 000 000 000 000 – trillion**

The network data response speed or latency is measured using this unit.

- a. MegaByte (MB)
- b. GigaHertz (GHz)
- c. Bits Per Second (bps)
- d. Milliseconds (ms)**