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)