| 1 | Find out the incorrect statement |
|---|---|
| | a) Accessing an element is easier in an array then in the list. |
| | b) Link list wastes memory in saving pointer addresses. |
| | c) Insertion and deletion is easy in arrays. |
| | d) Memory is wasted in arrays because all of the array may not be utilized. |
| 2 | Find out the incorrect statement |
| | a) An Algorithm is a finite sequence of steps where each step is unambiguous and which terminates for all possible inputs in a finite amount of time. |
| | b) An algorithm should be scalable for future improvements and for all input sizes. |
| | c) Algorithm is a program and can be written in any High Level Language |
| | d) Algorithm should be simple, readable and working correctly. |
| 3 | Five items 1,2,3,4,5 are pushed in a stack in order starting from 1. The stack is popped four times & popped elements are inserted in a queue then two elements are deleted from the queue & pushed back in the stack. Now one element is popped from the stack, the popped element is <br> a) 4　　　b) 3　　　c) 2　　　d) 1 |
| 4 | The minimum time will be taken by the algorithm of complexity <br> A) $\log n$　　　B) $n$　　C) $n \log n$　　D) $n^2$　　　　E) $n^3$ |
| 5 | for $3n^3 + 20n^2 + 5$　The order notation using Big oh notation is <br> c) $O(n^3)$　　　b) $O(n^2)$　　　$O(n)$　　　d) 5 |
| 6 | Bill has an algorithm, find2D, to find an element x in an nXn array A. The algorithm find2D iterates over the rows of A & calls the algorithm arrayFind on each row, until x is found or it has reached all rows of A. What is the worst case running time of find2D in terms of n? <br> A) $n$　　　　　　B) $\log(n)$　　C) $n^2$　　　　　　D) $n(\log(n))$ |
| 7 | $T(n) = 2T(n/2) + n \log n$　　　　　Using Master theorem what will be $T(n)$ <br> A) $n(\log(n))$　　　　B) $\log(n)$　　C) $n \log^2 n$　　　　D) $n^2 \log n$ |
| 8 | In strassen's Multiplication Algorithm the $T(n)$ is <br> A) $7T(n) + bn^2$　　　　B) $7T(n/2) + bn^2$ <br> C) $8T(n/2) + bn^2$　　　　D) $7T(n/2) + bn$ |