

1. Which is the category of bubble sort algorithm.
  - a) Sorting by distribution
  - b) sorting by exchange
  - c) sorting by insertion
  - d) sorting by partition
2. What should be appropriate for a normal problem analysis
  - a) Micro, Apriori and average case analysis
  - b) Macro, Posterior and average case analysis
  - c) Micro, Apriori and worst case analysis
  - d) Macro, Apriori and worst case analysis
3. What will be the result of last result of given priority queue if number 1 is the highest priority  
 Enqueue(3), enqueue(6), enqueue(2),dequeue,dequeue, enqueue(5),enqueue(1),dequeue,dequeue
  - a) 3
  - b) 6
  - c) 5
  - d) 1
4. Which data structure will be better is in our application the number of insertions,deletions and access operations are equally distributed.
  - a) Array
  - b) Linked List
  - c) Text File
5. If Josephus (7,?) is 3,6,2,7,5,1,4 what is ?
  - a) 3
  - b) 4
  - c) 2
  - d) 7
6. One of the following best defines the Greedy Strategy
  - a) It always gives Global optimal solution
  - b) It gives local optimal solution
  - c) It Combines the local optimal solution to give the Global optimal solution
  - d) It combines the global optimal solution to give the Local optimal solution
7. If Total complexity after micro analysis is  $5n^3 + 10n^2 + 100n + 400 \log n + 10$ , The Big Oh complexity is
  - a)  $n^2$
  - b)  $n^3$
  - c)  $5n + 400 \log n$
  - d)  $5n^3 + 10n^2 + 100n + 400 \log n + 10$
8. Quick sort is solved using
  - A. Divide and conquer
  - B. Greedy Programming
  - C. Dynamic Programming
  - D. Branch and bound
9. In a fractional Knapsack three items (1,2,3) have weights (4,8,6) & profits (12,32,30) respectively. If the weight of the knapsack is 10 then the solution is
  - A.  $3 \rightarrow 6, 2 \rightarrow 4$
  - B.  $3 \rightarrow 4, 2 \rightarrow 6$
  - C.  $3 \rightarrow 6, 1 \rightarrow 4$
  - D.  $1 \rightarrow 4, 2 \rightarrow 6$
10.  $O(f(n))$  minus  $O(f(n))$  is equal to
  - A) zero
  - B) A constant
  - C)  $f(n)$
  - D)  $O(f(n))$