Computer Science Sample Questions

Q-1 Select the one true statement. A) Every binary tree is either complete or full.
B) Every complete binary tree is also a full binary tree.
C) Every full binary tree is also a complete binary tree
D) No binary tree is both complete and full.

Q-2 Which data structure has the fastest insertion procedure? A) Binary search tree
B) Ordered array
C) Heap
D) Unordered linked list
E) Ordered linked list

Q-3 What are the complexities of the insert, remove and search methods of a binary search tree in the worst case? A) insert is O(n), remove is O(n), search is O(n)
B) insert is O(log n), remove is O(log n), search is O(n)
C) insert is O(log n), remove is O(log n), search is O(log n)
D) insert is O(log n), remove is O(log n), search is O(1)
E) These methods can't be defined on a binary search tree

Q-4 This Ethernet frame type is characterized by its use of the code AA in the SAP fields. A) Ethernet II
B) Ethernet RAW
C) Ethernet 802.2
D) Ethernet SNAP

Q-5 Which of the following are examples of routed protocols? (Choose all that apply) A) IP
B) IPX
C) RIP
D) OSPF
E) AppleTalk

Q-6 If switches are used to replace hubs on a network, which of the following statements is true? A) The number of broadcast domains will decrease
B) The number of collision domains will increase
C) The number of collision domains will decrease
D) The number of broadcast domains will be zero

Q-7 Full duplex Ethernet communication is only possible when:

A. Systems are connected to same LAN segments
B. Systems are connected to a bridged ports
C. Systems are connected to their own switch port
D. Systems are running over a fiber optic connection

Q-8 SQL is the combination of

A) DDL and DQL
B) DDL , DML and DQL
C) DDL,DML,DQL and DCL
D) None of these

Q-9 Which of the following applications may use a stack?

A) A parentheses balancing program.
B) Keeping track of local variables at run time.
C) Syntax analyzer for a compiler.
D) All of the above

Q -10 Consider the implementation of the Stack using a partially-filled array. What goes wrong if we try to store the top of the Stack at location [0] and the bottom of the Stack at the last used position of the array?

A) Both peek and pop would require linear time.
B) Both push and pop would require linear time.
C) The Stack could not be used to check balanced parentheses.
D) The Stack could not be used to evaluate postfix expressions.