PHY-101 Quiz OnlineTest

Sr	Questions	Answers Choice
1	Suppose we have a hash table whose hash function is "n% 12",if the number 35 is already in the hash table which of the following numbers would cause a collision ?	A. 144 B. 145 C. 143 D. 148
2	Consider a min heap, represented by the following array: 3,4,6,7,5,10 After inserting a node with value 1.Which of the following is the updated min heap?	A. 3,4,6,7,5,10,1 B. 3,4,6,7,5,1,10 C. 3,4,1,5,7,10,6 D. 1,4,3,5,7,10,6close to correct but correct ans is 1,4,3,7,5,10,6
3	Which of the following method is helpful in creating the heap at once?	A. insert B. add C. update D. preculateDown
4	If a max heap is implemented using a partially filled array called data, and the array contains n elements (n > 0), where is the entry with the greatest value?	A. Data[0] B. data[1] C. data[n-1] D. data[n]
5	A compound data structure is the data structure which can have multiple data items of same type or of different types,which of the following can be considered compound data structure ?	A. Arrays B. LinkLists C. Binary Search Trees D. All of the given options
6	Searching of an element in an AVL tree take minimum ____ time (where n is number of nodes in AVL tree)	A. Log₂(n+1) B. Log₂(n+1) -1 C. 1.44 Log₂n D. 1.66 Log₂n
7	Suppose we are sorting an array of eight integers using quick sort ,and we have just finished the first partitioning with the array looking like this 2 5 1 7 9 12 11 10 Which statement is correct?	A. The pivot could be either the 7 or the 9. B. The pivot could be the 7, but it is not the 9. C. The pivot is not the 7, but it could be the 9 D. Neither the 7 nor the 9 is the pivot.
8	A complete binary tree us a tree that is ___ filled with the possible exception of the bottom level.	A. partially B. completely C. incompletely D. partly
9	In sequential access data structure ,accessing any element in the data structure takes different amount of time.Tell which one of the following is sequential access data structure.	A. Arrays B. Lists C. Both of these D. None of these
10	If you know the size of the data structure in advance, i.e., at compile time, which one of the following is a good data structure to use.	A. Array B. List C. Both D. None of the above
11	Suppose A is an array containing numbers in increasing order, but some numbers occur more than once when using a binary search for a value, the binary search always finds _____	A. the first occurrence of a value. B. the second occurrence of a value C. may find first or second occurrence of a value. D. None of the given options
12	Which of the following statement statement is true about dummy node of threaded binary type?	A. This dummy node never has a value B. This dummy node has always some dummy values C. This dummy node has either no value or some dummy value D. This dummy node has always some integer value
13	Which of the following statement is NOT correct?	A. In linked list the elements are necessarily to be contiguous B. In the linked list the elements may locate at far positions in the memory C. in the linked list each elements also has he address of the elements

		next to it D. In an array the elements are contiguous
14	Consider the following postfix expression S and the initial values of the variable, S = A B - C + D E F - + ^ Assume that A=3, B=2, C=1, D=1, E=2, F=3 What would be the final output of the stack?	A. 1 B. 2 C. 0 D. -1
15	Which of the following is a property of binary tree?	A. A binary tree of N external nodes has N internal node. B. A binary tree of N internal nodes has N+ 1 external node C. A binary tree of N external nodes has N+ 1 internal node D. A binary tree of N internal nodes has N- 1 external node.
16	Compiler uses which one of the following to evaluate a mathematical equation	A. Binary Tree B. Binary Search Tree C. Parse Tree D. AVL Tree
17	A complete binary tree of height ___ has node between 16 to 31.	A. 2 B. 3 C. 4 D. 5
18	The data of the problem is of 2 GB and the hard disk is of 1 GB capacity,to solve this problem we should	A. use better data structure B. Increase the hard disk space C. Use the better algorithm D. Use as much data as we can store on the hard disk
19	Which one of the following is valid postfix expression?	A. ab+c*d- B. abc*+d- C. abc+*d- D. abc*)+d-
20	Consider a min heap, represented by the following array: 3,4,6,7,5 After calling the function deleteMin().Which of the following is the updated min heap?	A. 4,6,7,5 B. 6,7,5,4 C. 4,5,6,7 D. 4,6,5,7