

PHY-101 Quiz OnlineTest

Sr	Questions	Answers Choice
1	Every AVL is	A. Binary tree B. Complete tree C. None of these D. Binary Search tree
2	Let heap stored in an array as H = [50, 40, 37, 32, 28, 22, 36, 13]. In other words, the root of the heap contains the maximum element. What is the result of deleting 40 from this heap	A. [50,32, 37,13, 28, 22, 36] according to max heap property B. [37, 28, 32, 22, 36, 13] C. [37, 36, 32, 28, 13, 22] D. [37, 32, 36, 13, 28, 22]
3	If there are N elements in an array then the number of maximum steps needed to find an element using Binary Search is	A. N B. N ² C. Nlog ₂ N D. log ₂ N
4	Binary Search is an algorithm of searching ,used with the data .	A. Sorted B. Unsorted C. Heterogeneous D. Heterogeneous
5	The arguments passed to a function should match in number, type and order with the parameters in the function definition.	A. True B. False C. both
6	Suppose you implement a heap (with the largest element on top) in an array. Consider the different arrays below, determine the one that cannot possibly be a heap:	A. 7 6 5 4 3 2 1 B. 7 3 6 2 1 4 5 C. 7 6 4 3 5 2 1 D. 7 3 6 4 2 5 1
7	While joining nodes in the building of Huffman encoding tree if there are more nodes with same frequency, we choose the nodes	A. Randomly B. That occur first in the text message C. That are lexically smaller among others D. That are lexically greater among others
8	The definition of Transitivity property is	A. For all element x member of S, x R x B. For all elements x and y, x R y if and only if y R x C. For all elements x, y and z, if x R y and y R z then x R z D. For all elements w, x, y and z, if x R y and w R z then x R z
9	If both pointers of the node in a binary tree are NULL then it will be a/an	A. Inner node B. Leaf node C. Root node D. None of the given options
10	Which of the following statement is correct property of binary trees?	A. A binary tree with internal nodes has N+1 internal links B. A binary tree with N external nodes has 2N internal nodes. C. A binary tree with N internal nodes has N+ 1 external node. D. None of above statement is a property of the binary tree.
11	A complete binary tree of height has nodes between 16-31.	A. 2 B. 3 C. 4 D. 5
12	In an array we can store data elements of different types	A. True B. False C. Not sure
13	Which of the following is a non linear data structure?	A. Linked List B. Stack C. Tree D. Queue
		A. xy -a * b +c /

14	Consider the following infix expression: $x - y^*a + b/c$ Which of the following is a correct equivalent expression(s) for the above?	B. x*y a - b c / + C. x y a * - b c / + D. x y a * - b/ + c
15	If a complete binary tree has n number of nodes then its height will be	A. Log ₂ (n+1)-1 B. 2 ⁿ C. 2 ⁿ -1
16	Which of the following statement is true about $\operatorname{find}(x)$ operation :	A. A find(x) on element x is performed by returning exactly the same node that is found. B. A find(x) on element x is performed by returning the root of the tree containing x. C. A find(x) on element x is performed by returning TRUE. D. A find(x) on element x is performed by returning the whole tree itself containing x
17	Consider te following array 23 15 5 12 40 10 7 After the first pass of a particular algorithm, the array looks like 15 5 12 23 10 7 40 Name the algorithm used	A. Heap sort B. Selection sort C. Insertion sort D. Bubble sort
18	Which one of the following is valid postfix expression?	A. ab+c*d- B. abc*+d- C. abc+*d- D. abc*)+d-
19	Consider te following array 23 15 5 12 40 10 7 After the first pass of a particular algorithm, the array looks like 15 12 23 10 7 40 Name the algorithm used	A. Heap sort B. Selection sort C. insertion sort D. Bubble sort
20	A kind of expression where the operator is present between two operands calledexpressions .	A. Postfix B. Infix C. Prefix D. None of the above