Heap Quiz: Test your understanding of Heaps

Here are the top ten most commonly asked interview questions on heaps!

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1 ⊗ Choose the correct option:

○ **A)** Stack is used to implement heap

Correct Answer
✓ **B)** A valid heap must be a complete binary tree

Your Answer
⊗ **C)** Both A and B

○ **D)** None of the above

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2 ⊗ Choose the best option:

○ **A)** Heap can not be implemented using only lists

Correct Answer
✓ **B)** The nodes of a heap must be ordered according to the heap property

Your Answer
⊗ **C)** Both A and B

○ **D)** None of the above

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3 ✓ Which of the following best describes valid heap data structures?

A) Min Heap

B) Max Heap

Your Answer

✓ C) Both A and B

D) None of the above

✓ 4 If Node A has a child Node B, then what type of heap has following property?

$$key(A) >= key(B)$$

A) Min Heap

Your Answer

✓ B) Max Heap

C) Both A and B

D) None of the above

✓ 5 If Node A has a child Node B, then what type of heap has following property?

$$key(A) <= key(B)$$

Your Answer

✓ A) Min Heap

B) Max Heap

C) Both A and B

○ **D)** None of the above

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6 ✓ What is the time complexity of the insertion operation in a heap?

○ **A)** $O(1)$

○ **B)** $O(n)$

Your Answer
✓ **C)** $O(logn)$

○ **D)** $O(nlogn)$

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7 ✓ What is the time complexity of deletion operation in heap?

○ **A)** $O(1)$

○ **B)** $O(n)$

Your Answer
✓ **C)** $O(logn)$

○ **D)** $O(nlogn)$

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8 ✗ What is the time complexity of the search operation in a heap?

Your Answer
✗ **A)** $O(1)$

✓ **B)** $O(n)$

○ **C)** $O(logn)$

○ **D)** $O(nlogn)$

⊗ **9** A heap is represented using a list. Which of the following gives the correct indices for the left and right children of a node stored at index k?

○ **A)** leftChild : $2k + 1$

rightChild : $2k$

Your Answer

⊗ **B)** leftChild : $2k$

rightChild : $2k + 1$

Correct Answer

✓ **C)** leftChild : $2k + 1$

rightChild : $2k + 2$

○ **D)** leftChild : $2k/2$

rightChild : $(k + 1)/2$

⊗ **10** A heap is represented using a list. Which of the following gives the correct index for the parent of a node stored at index k?

Your Answer

⊗ **A)** $k/2$

○ **B)** $(k + 1)/2$

✓ **C)** $floor((k-1)/2)$

⦿ **D)** $ceil(k/2)$

SUMMARY

Correct	5

Incorrect	5

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What is a Hash Table?

✓ **Mark as Completed**

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