12, 18

~~Q Find out the next multiple~~

Q8 Find out whether a machine is big endian or little endian

Q9 mirror image of binary tree

Q10 Rotate a matrix. 90 about the kth coloumn

Q11 Find x^n in $lg(n)$ time.

Inorder – lnr
Pre – nlr
Post – lrn.

Moni **Q12** Inorder and post order ~~is given~~ of tree is given you have to construct a tree

Q13 Find the nth number ~~of~~ in a fibonaci series

Q14 A Sentence is given, u have to reverse words.

Q15 write a algorithm to findout the substring in a string and find out the number of occurance also.

Q16 reverse a string without using any loops.

Q17 write a program to find whether a given no is a Power of 2 or not using bit wise operators.

Moni **Q18** you have big unsorted file in hard disk which is far bigger than RAM. How would you sort the file

20, 27, 28

Q19 write a code to find the largest of 3 numbers in single line.

Q20 Allocate memory to a 3d array using pointers.
do again from scratch

Q21 write a code to invert all odd bits of a number.

Q22 write strrindex(char *c, char *t) which finds the right most index of t in C.

Q23 WAP to sort a link list.

Q24 Given integer A, B. Determine how many bits required to convert A to B.

Q25 There is an array (sorted). Some numbers from the start have been rotated left. Now give the algo binary search to find an element in O(log n) time.

Q26 You are given an array of integers positive or -ve. Also given another number k. U have to find whether the sum of any two of the numbers from the array is equal to k in O(n) time.

Same

Q27 Given a file with 10^7 numbers in the range 1 to 10^7. Total Ram available is 1MB. How will you sort the numbers.

Q28 A two dimensional array such that number in each row and column is in increasing order. Search for a given no.

30, 32

in the arrays:

Q29 Given a array of size M+N in which first M numbers sorted and last N space are vacant. Another array N which is sorted. Now merge these two arrays with using any extra space so that the array of M+N size Optimize it to have complexity M+N.

Q30 An array of size N having no's in the range 0 to and can have many duplicates find the duplicates.

Q31 How to find Common elements from two linklist of n and m in O(n+m).

Q32 How to find Common ancestor of two given nodes binary tree

Q33 : write a function that returns a node in a tree two parameters: pointer to the root node and the harder traversal number of the node we want to the only information stored in the tree is the numbe children for each node.

Check out Bhumi's code

Q34 Given an input array has both the 8 -ve numb Find the sub array with maximum Sum.

Q35 Reverse a stack with recursion. Uhave only pu size, isEmpty function.

Q36 Reverse a stack with recursion. without using any extra stack.

Q37 WAP a program to rotate the array about the mid K.

Q38 Given an array with random 0,1, sort 0's to left and 1's to right

Q39 A Sequence of number is called a Zig-zag sequence if the diff. between successive number strictly alternate between positive and negative. The first difference can may be either positive or -ve. A sequence with fewer than two element is trivially a Zig-zag Sequence.

Q40 Suppose that you are given a sorted sequence of distinct number (integers) $[a_1, a_2 \cdots, a_n]$. Give an O(lg n) algorithm to determine whether there exist an index such that $a[i] = i$.

Q41 $X[1 \cdots n]$ and $Y[1 \cdots n]$ are 2 sorted array. give $O(\lg n)$ algo to find median of the array formed by merging the 2 arrays.

Q42 Given a String S1 & string S2, write a function to say whether S2 is a rotation of S1.

Q43 Given two positive integer arrays $a[N]$, $b[N]$. find the largest n elements with sum $(a[1], a[2])$ highest.)

53

Q44 (Home)

Q44 There is an array of size n storing no's between 0 to n-3 and 2 no's are repeated. Find the repeated no's.

Q45 How to maintain double link list using a single pointer.

Q46 WAP to print a 2D array in spiral.

Q47 WAP a program to find first non-repeating character in a null terminating string.

Q48 WAP to remove all duplicate elements from a s[tring]

Q49 WAP to convert
$a_1 a_2 a_3 a_4 \ldots a_n b_1 b_2 b_3 \ldots b_n > a_1 b_1 a_2 b_2 a_3 b_3 \ldots$
in O(n) time.

Q50 WAP a program to find all palindrome i[n a] string.

Check 1 of 1 point 1 word
Q51 WAP a program to find whether a binary t[ree is] a bst or not.

Q52 Find all anagrams of a given word in the [least] amount of time.

Q53 WAP to find the permutation.

count the no of bits set in an integer

57, 55, 56, 57, 59, 60, 61, 62

Q54 WAP to reverse the bits in a integer

Q55 WAP to sort the stack.

Q56 A Gray code of n bits is defined as a sequence of n bits binary number such that there is only 1-bit difference between them. Further, there is an one-bit difference between last no and first number. It is cyc write a function to generate the gray code.

Q57 WAP to check if two binary trees are isomorphic. Two trees are isomorphic if they are the same or one can be obtained from the other by a series of flips. A flip across a node is swapping its left and right subtree.

Q58 Given a single link list. How would you detect if it contain cycle.

Q59 There is an array of n ~~elements~~ numbers. one numb is repeate n/2 times and other n/2 numbers are distinct. Find repeated no in (n/2+1) comparisons

Q60 An array X of n numbers. given a number m ($0 <= m <= n$). Find an i between 0 and n such that $X[i] + X[i+1] + \ldots + X[i+m]$ is closest to

Q61 Find a monotonically increasing sequence in an array. (not necessary continuous)

#66, 68, 69 ✓

Q62 write a code to find whether two strings are at a distance of 1. Distance of 1 mea[ns] that they differ by the insertion/deletion o[r] replacement of 1 char.

Q63 Give an algo to find the second most sho[rtest] path between two vertices.

Q64 Given two binary search tree, merg th[em] into a single tree.

Q65 Convert a binary search tree into a sorte[d] double link list.

Q66 Traverse a tree and for each node output [its] value and path from the root in terms of a[n] LR string.

Q67 Given a string wwedfeet. WAP to con[vert] it into wzedfezt

Q68 Given an incomming stream of sorted numb[ers] construct a binary search tree. At each stage, [you] should have a nearly balanced tree.

Q69 A vector in Java is an array that can g[row] dynamically. we were given two strategies of growing the vector either increasing its siz[e]

Q2 Q3 Q6 Q7

by a fixed amount every time more space was need or by doubling the vector size when ever the space was needed. Compute the Complexity of inserting n elements into this vector in both the cases.

Q70 Reverse a link list at every k interval.
node * Reverse (node* head, int k)

Q71 You have a list of number $x_1, x_2, x_3 \dots x_n$. Populate the list Y with Numbers $y_1, y_2 \dots y_n$ such y_i is the product of $x_1 x_2 \dots x_{(i-1)} x_{(i+1)} \dots x_n$. what if you are not allowed to use division Operator. (O(n) solution).

Q72 Print the level order from bottom of the tree

Q73 How would you find whether a number is Square or not.

Q74 Finding diameter of the binary tree with only one traversal of tree.

Q75 write a function which will return the level of the tree which has maximum number of nodes Optimize it for a sparse tree.

Q76 write a iterative code for inorder preorder

Q77 write a iterative code for inorder & preorder

Name
79, 80, 82, 83, 84

if parent node is given

Q78) Find the height of the tree. ~~when an array~~ which contain data from 1 to N. Now an arr is given to U which contain the ith element pai
a[i] = parent of i.
you are allowed to destroy the array.

Q79) Inorder traversal of max heap is given. Now to regenerate tree from the given array.

Q80 2 linklist are given in sorted order now u ha Create a new link list which will have only those elements which are common in both li list.

Q81 Find the diameter of a tree. O(n) (repeated)

Q82) 3 Sorted arrays are given lets A, B, C. Alpha defined as MAX (x-y, y-z, z-x) where x is integer from A, y is integer from B and z is integ from C. Now find the min (Alpha). ~~and there x~~

Q83 A Graph is represented as adjacent matrix. Now to Check whether there is any universal sink in the graph. in O(V).

84, 85 without using loop

discrete log of a number

~~84~~ (85), 88 (90) (91) 92.

Home / Home

Q84 WAP to count the no of bits on an 32 bit integer. (repeat)

(Q85) Reverse a 32 bit integer bits without using ~~count~~ tools.

Q86 WAP to remove loop in a link list.

Q87 WAP to insert in sorted double link list.

~~Q88 WAP to count the trailing zero's in an integer binary representation of zeros integer.~~

Q88 WAP to round up a ~~non~~ integer to the next power of 2.

~~Q90 How can I stop people diving from my class.~~

Q89 WAP to count the trailing zero's in an integer. binary representation of number.

Q90 How can I ~~stop~~ people ~~diving~~ depriving from my class.

Q91 write a function which will set 0 the MSB set in an integer.

Q92 An array is given with only 0's & 1's. now arrange the array in this format

0 1 0 1 - - - - - (1 1 1 or 0 0 0)

all extra 0's or 1's should be at end only.

Q93 Tower of Hanoi.