

Does anyone have the link for the document micfor the session 2017-18
??ama

https://docs.google.com/document/d/14n_ndLZXY2QWe0r0IRHd76sMBky0zfrqbcgxS49Rrpq/edit#heading=h.8he4hf1vs131

Dev test??

is KPIT visited anywhere?what is the selection procedure? k guys plz

What did cagemini asked in interview ? please reply I have interview torow
@ iitb

Is bpcl recruiting students from civil
branch ?? any other information about PSUs ? (in which IIT is BPCL
coming?)

Yes @iitbhu

CAPGEMINI INTERVIEW QUESTIONS ANYONE??

BPCL anyone??

Anybody got offer letter ?? Did companies started sending offer letters??
YES. which company? Sprinklr, gurgaon(yes!!20LPA). Reliance Jio, Tata
Innovation Labs, Qualcomm hph

In which IITs has HPCL registered?

k

Guys what is the minimum CGPA required for cs guy to get placed ?Pls ans
(5)

4.0

Capgemini recruiting twice from the same IIT anywhere else than IITR,IIT k, IITK

? IIT(BHU) process completed 17 placed- saale wapas nh dene de rh test
koi faida nh hua bc :(

Which PSUs are recruiting in second phase?

HPCL, IOCL ([in which IITs is HPCL and IOCL visiting?](#))IIT k, IIT Delhi
BPCL(maybe)

MERCEDES BENZ Post Graduate Engineer Profile.

Benz is visiting IIT(BHU,R).Will be telling about profiles as we get to know more from placement cell.

Samsung Bangalore CTC breakup? Please urgent. 13base + 3-13L bonus

How many placed in Sears and what is its ctc breakup?

- 6 from IIT BHU (3 Joining) , no info on ctc breakup
- 8 from Guwahati
- 10 from Roorkee
- k ??
- adLife barbad ho jati hai bhai smsung me...training
bhi achhi nhi hai...work culture bhi bhot ghatiya

hvy any IIT? Yes in k,in IITR Questions plz???

Any please share the **Futures First** questions. The company came today at IITD

In first round, most questions will be about google doc form you filled. They will judge you only on confidence level. Stick firmly to your points/answer whatever you have made.

Second round(if shortlisted), you will play bidding game with 14-15 people in one group where you will be using actual trading terms where your aim is maximize personal profit. So better to get aware about trade market working beforehand.

Please share vmock coding test questions... URGENT test tomorrow

Le bhai good luck: Test for Vmock happened in october at IIT Delhi, I don't remember exact words

- Count Inversions in an array
- Simple string question
- Simple DP question
- Huffman Encoding Question (use of max or min heap)
- Number of triangle that can be made from all a,b,c less than 10^6

Zemoso Labs any IIT?? Plz share the questions asked and procedure followed for taking people. Yes test done in iitk

**DRDO interviews k waale....
(URGENT PLZZ)**

SCA Tech anywhere ? bta do bhai log.

Supply chain k questions aayegi.. Like there are 10 manufacturing sites and 6 distribution centers and you have optimize the cost of transportation. App questions was very easy. 1 question was from probability (Baye's theorem)

****Quantum phinance test questions anyone ??**

IS BPCL actually going to visit the campus(IIT k)??

C-DOT???iitbhu aaegi

C-dot came to IITD, they don't know anything (literally), all they were asking was: what does ls command do in Linux?, Selection is random, They will pick 2 students, good if you have CGPA>7

Bhai koi sap labs mein kya kya aay ye bta do? file : simple os questions like semaphore, process scheduling , read java thoroughly and its oops concepts they work on java only. In second round they ask simple sorting for For data developer profile, large dataset is given and asked me to write code for it., Binary search tree questions and code also.
Implement your malloc and free
Please request hai.....

#note:thanks dear..test mein kaha se aaya tha? Geeks se?(sap labs....)

veritas technologies anywhere??

fMeru (ops) test pattern anyone? Selection procedure?

HSBC EDPI PROFILE ANYWHERE

k (18 hired)

Tata Communications for GCP profile ??

**Nucleus Software anywhere (Bhai bata do bahut me katwaya hu,bhai mein 11 jagah katwaya..tera score)??
Bhai test ho chuka h..Interview me kya puchti h vo batado.**

Wipro anywhere ?? please questions??kuch nahi poochti h bhai wipro

Nexteducation questions @iitG

- 1) Guess the Total number of ATMs in Bombay.
- 2) Total question 15(1 hr)- Some aptitude , some objective , coding and 1 guesstimates and 2 subjective coding.

[How many did they hire????]

Futures First anywhere?? : In IITK It was today, you can find most of details below search the doc. **1st round was normal HR, then 3 rounds of trading where you will be checked on ur grasping power, then a 16 qns apti test followed by a stress interview. It took 3 from `IITR after interviewing 130(approx).**

veritas technologies anywhere??

ICICI questions or pattern anyone ??

Coding hogा.....? Nahi consultant hi h but pay **9 LPA**

Any info about PwC pvt. Ltd. pay and work
? specially variacccponent

Grappus tech? Anyone Plz ?????

How are placements in other IITs? Its
going very bad at IITD. CS ppl not
placed yet.

Same at IITK

All cse @iitbhu placed by day4....nope a lot of them got placed on day6 and there are still left

Worst in IIT Kharagpur. I compare all IIT results and get to know worst in kharagpur.
But it is **worst in IIT Roorkee**. Even coders are not placed when 70% companies are software based

Not too bad at IITB (By day 3, 12 cs btech students were left over), overall apart from ppos, 482 selections in first 3 days,300 in k out of 2200

Companies list is also decreased all of a sudden in IIT k 3rd day 10 companies.!

Same here in iit roorkee.very few companies after day 3.those who are coming have ctc<8 lakhs :((Is baar bahut kam bhi le kar jaa rahi h yarr...sannata chaya hua h Day3 ke bad @IIT BHU.)

Grappus tech.? Any IIT?

Same in IITR...day 6 is almost silent

AXTRIA Test anywhere?????? Process completed 3 people selected . quant apti verbal coding. Simple HR rounds with guesstimates puzzles. Took 9 from k

What about HSBC software profile?? They shortlist some students after 1st round but still no news at IITR have they visited any other iit?

Grappus technologies pvt limited, questions anyone?

-Mid point of linked list, 20 simple questions- do fast,2 more coding questions .

GE test questions (Edison profile) ??

Capital Dynamics : What is asked in written test? Please someone update....

People, be careful with this company.

<https://www.glassdoor.co.in/Reviews/Capital-Dynamics-Reviews-E223933.htm?countryRedirect=true>

Search on glassdoor for this. To get access to full reviews, you need to provide a review yourself. Just write a review about your internship and you can read all reviews for this company.

What are your opinions on Capital Dynamics ? Should I apply for that company which is giving CTC : 17378 USD ? ? +2 No don't apply they have a 3 year bond (it's too less in That country with 3-year bond...isse badiya yaha Bank me Job le lunga..me shortlisted hu but not going to sit for interview... Malaysia is very costly) + (Bhai 3 sal esi jagah rahega jaha se tu daily India apne Friends ko isliye call karega ki Hindi sun lu English tak nhi bolte wo log)

YEAH INDIANS KAM H MALAYSIA ME... JUST SEARCH FOR BURGER RATE IN THAT COUNTRY MAY BE THAT WILL HELP YOU.

I read on quora that 5000 myr per month is enough to have a good living in Malaysia.

<https://www.quora.com/How-good-7000-ringgit-month-is-at-3-8-years-of-IT-experience-migrating-from-India-to-Malaysia-Kuala-Lampur/answer/Annamalai-Somasundaram-1?rid=odMw>

IIT Delhi and IIT Hyderabad, has cookpad come for placements there. Did they select anyone. What is the process ? IITD aayi thi... they shortlisted 4 and took 1 I guess... they took skype interviews. Was there a coding round ? what were the questions ? (They gave out 3 questions : 1 for web development, 1 general ,1 android development) those who solved 2, were shortlisted.

TCS (Business process services) profile and TCS(IT) profile pattern and questions plz?(If possible upload photos of the paper plz)

veritas technologies anywhere??

ASC Infratech placement procedure or placement question paper?, Interview question?

FRovi corporation, Anywhere please share

HPCL, which profile??Any IIT???

What kind of questions?

Please HELP !! :)

Bahut lthe questions og bache hai abhi to ????

Infosys is visiting campus for Technology Analyst post If infosys had conducted test for this profile in any other campus please post friends..![sala abhi tak place nhi hue hai bahot saare log] 6 Dec in IIT BHU...No test

Urgent: Capillary written questions?????

Capillary iit k:l

Very easy quant

Very basic ds c++ os networking questions

DELL EMC written questions?????

50 question 60 mins:

Emphasis should be done on doing maximum no. o questions only

Leave lengthy ones there are short easy one attempt them first

interview project 25 horses puzzle collatz sequence

Linked list loop detection

Complete os should be known

Diff in c and c++ deep deep implementations

In k there shortlisted 15-20

Took 1

He too left and moved to netapp :)

Worthless hr good interviewer

Times Internet Questions Anyone?

Netapp question paper: iit k

4 sections: 60 min 50 question platform meazr.com

algorithm, c/c++ coding output, analytical very easy, system architecture

Algorithm basic questions: linear search complexity examples, bubble sort example to find complexity, similar basic questions, tree questions basic

**C c++ very basic, output, printf outputs,
System architecture about networking ip address,
All the best and share huawei in case anybody screened through!!!
Oyo test questions? Or pattern? <<ans very AMCAT Test easy mcq's
verbal,quant,and general D.I basic indiabix problems will do trick.solve as quick
as u can section wise cutoff.D.I was moderate it only makes difference so try to
solve D.I as perfect as possible**

**Shortlisting will be highly based on P.O.R even if u score full marks in written
test.**

Hike Shortlisting Criteria at IITD?

Grey orange interview ?? - Backend software !

Edgeverve interview questions ?? anyone(iit bhu guys, plz help ..)

**OYO Rooms CTC in IIT BHU?? Anyone (bhai o founder ritesh mc aadmi hai, ponzi
scheme h saara ka saara mat fasna isme)**

Why does PwC despite being 1 of big 4 pays so less??

NetApp Pattern please.....

Nucleus Questions anyone??

TransBit written question paper anyone??

**1.{1,1,1,3,4,2,2,3,2,3} determine which is not occurring thrice in O(1) space and
O(n) complexity.**

2.String A=String B in min number of steps using Delete,Replace and insert.

Psus selection criteria guys HPCL etc and their reservation policy also ?

Edelweiss coming to any iit?? IIT bhu

Smartprix interview question anyone ??

**BookMyShow Interview questions - ?? IITM guys tumhara nhi hua kya abhi??
Given an array find sum of every nth element as A[n]+A[2n]+A[3n]....And no one
shortlisted for second round at IIT R, Took none in IIT G.**

YOY rooms Test?

Zs-Data Science Test?

DE Shaw WORST COMPANY, THEY DO NOT TAKE ANYONE, THEY DESERVE TO BE BLACKLISTED ---- Yes they dont deserve to get first slots, and even at places they are recruiting its such a random process. (+ 4)

Sala day3 mein aake 1 ko liya. And their first round (hackerrank) was the toughest of all. Apne aap ko FB/Google samajta hai zzzzzzzz

*Considering it is one of the pioneers in the field, they couldn't get good enough students on day-3 in k. That is the reason why they went empty handed. Sounds reasonable to me.

(in iitg it was day 2, also there are a LOT of good students left in day 2-3, bhu-day1, did not hire any)

Behnchod Madarchod transbit waale kisi ko nh leke gaye-> 4 leke gaye h bc IITR mai toh

ZS test anywhere?? NO

IIT BHU PROCESS COMPLETED (Total 11 selected)

Is there any test? Which profile?selection criteria?

CISCO (software engineer -IA) ctc breakup please anyone ??

Clustr Test Questions Anyone?

FICO in any iit?? Tmrw k

1cisco Healthcare at home anyone????

ISRO questions in Interview Anyone?

CITI CORP (SOFTWARE PROFILE) INTERVIEW QUESTIONS

ANYONE????????????IITG please update...u had interviews right??

(Application analyst programmer)- hired 10 members

Interview - based on Cv-projects and internships...how do you design an application which gives suggestions based on credit card history and gps location history and personal details ?(JUst the ideology required) & Draw a flow diagram for the process of opening a bank account.

Paytm Interview question(SDE profile)???

Simple Questions on Linked List

Given two arrays is there any chance to build a same BST(construct from index 0 to n)

How do you eliminate duplicates present (randomly) in an array in $O(n)$ time $O(1)$ space

Sort a stack using only stacks OKAY

Standard Puzzles & questions related to sorting.

Implementation of Trie Data Structure

I think above questions help cheers !!

Edfora Test;

1. Again very simple question. Use Java HashMaP simple bfs problem to find the path in a grid consisting of bombs and some empty spaces, you need to to find the shortest path from source to destination
2. p in this.
3. Read about matrix based Fibonacci number (bcuz $n=10^{18}$), calculation and read the question properly

WHAT OTHER QUESTIONS WERE ASKED IN DIRECTI?

Directi Interview:

1. Given a BST (with its structure). Find permutations of the keys of the BST that would be produce the same tree when inserted in that order. In IIT Roorkee, no fbody solved this question.

Infact, Directi has n blacklisted in IIT Roorkee, since it came on day 1 and took nobody.Why so???it took 4 from bhu.

WalmartLabs Interview:

1st round:Algo and DS design round: Here you will be given a problem and you need to design a solution to the problem using data structures. Some important data structures are:

- a. Trie
- b. HashMap
- c. BST (augmented with the number of nodes in its subtree).
- d. ArrayList

He asked me questions like:

1. How to design a query system that has keys as prefix based strings. First I gave a hashmap solution, but he told me to make it memory efficient. Then I gave a Trie based solution. Also write code.
2. I have n given a stream of numbers, output the median at each step you input a number. First I gave a $O(n^2)$ solution using arrayList insertion. And then I came up with the augmented BST solution, which stores the number of nodes in each node in $O(n \log n)$. No code was required.

2rd Round: One asshole took the interview. The round has 2 questions:

1. Find the shortest path in a directed graph, both unweighted and weighted. I explained the dijkstra algo and then bfs (for unweighted). Wrote code for each.
2. Design a Lift(elevator) system, Write class for it. Wrote class for it. Asked me to do changes according to some shitty parameters. Then told me to design a system where there are multiple lifts. Then put some constraints on the lifts, and asked how would I change my system. Then asked me to write policies for it. I really don't know what he meant by policy. I suggested a lot of cool solution like some based on queue(similar to a ready queue in OS), multiprogramming, parallel threads to handle each request for the lifts.

3rd round:

We had to design a database system for a catalog (for a ecommerce) site where the user will query for the particular product with say product id. You have to return its attributes and their values. I proposed a solution to first include a column for each attribute. He said that since attributes may not be common for all products, for example, furniture and tv have different attributes and hence most of the attributes will be having null values. So, I told to include a single column of attributes which stored the attributes as a varchar consisting of JSON format attributes list, or a simple dictionary kind of key-value list. He didn't seem satisfied with this. So he asked me to devise a new solution. Meanwhile his girlfriend called him and he started talking with her and laughing. Later he returned after 8 minutes and asked me if I had come up with any new solution, I said we could also use a relational database for this. I said we could classify the products into some main products and include a foreign key (column) and according to the

foreign associate it with another table that is more product specific and hence could stored the product specific attributes. But the motherfucker was not satisfied with this solution too.

Later he asked me to design a data base for twitter feed display. I came up with many innovative solutions, but he was more interested in what actually twitter does than in what i was brainstorming. Then his girlfriend bitch call him again. I gave a very excellent design(according to my heart).

Finally I came out of this interview.

4th Round HR: Then an elephant sized HR(he must be HARAMBE i guess) took my HR interview. He fucking asked me the question, introduce myself. I shoted the answer straight as any candidate would do.

Then the motherfucker asked would I do higher studies. I said no(though I would like to do and I suggest you all to tell the same i.e., no). The he asked the most fucking question on the earth “why want to join walmartlabs”. I paused for a while and said in my mind “Madarchod paise ke liye aur kisliye). “ I gave an answer to the best. Then he asked what if was placed in a project that didn’t suit and interest me.I told him I would work in that project, but the moment I get an opportunity in a field that interest me , i would grab it. He asked me if I had any questions. I asked him a few questions and then he let me off.

I was fully confident that I would get the job.But to my shock, I was not selected, in fact a bunch of chutiyas were selected. I gave a warm fuck off to them. But I am happy bcoz I was later placed in a much better company “Samsung”. Woo hoo. In fact I later realised that i had got into walmart I would never have got an opportunity to interview for samsung. I glad. At the end, all izz well!:

-Ola ka kisi iit mae interview nhi hua kya??

Please help.Urgent[+1]

(Ola blacklist hone waala hai)

Ola selected 1 chutiya in IIT Roorkee without any interview after shortlisting around 25 students. IIT BHU selected 2.

For Directi plz solve all the questions of

Div1 in Codeforces and topcoder. THis would be very helpful. ACCHA?

YEAH, SURELY

IF SOMEONE IS ABLE TO SOLVE ALL DIV1 QUESTIONS, HE DOESN'T NEED THIS DOC -_- GOOGLE WILL BE WAITING FOR HIM ON DAY 0

Please add ans of smartprix questions!!

Ola interview questions ? (Software)

Walmart stat questions please??

Did Amazon come in k???????? NO

Is Ford India visiting any IIT other than k?

Ford visited IITR for dual degree students and recruited 2 students. How many from IIT k?

Interview funda for Mech?

Guys can anyone tell what kind of interview does AXIS bank take????Any interview questions would be a lot of help!!

Guys Plz? Plz Reply fast

Mentor Graphics Test Pattern? Questions?

Moonfrog Labs (Data Scientist) interview questions?? Anyone please!!

Guys plz post ola(research analyst) interview questions?

Directi interview questions ?? anyone

Given n points, find the largest possible quadrilateral formed by choosing 4 points

from these. (Hint: concave quadrilaterals possible.)

Applied Materials Test type ?? Questions ??

MasterCard Interview Questions,anyone?

Mastercard: Case studies, puzzles, guesstimates

Worksapp updated. See below.

NVIDIA questions?

Edelweiss interview questions.. Any IIT. Please update

Edfora questions, pattern...please update?

EDFORA questions anyone?

Objective(35 questions in 40 min) and

3 programming questions(1 hour 15 min)

ORACLE INDIA Interview Questions:

Round 1: [Technical] Most of the questions based on CV, Indepth knowledge of the projects mentioned in CV is required. I did few projects based on Convolutional Neural Network they asked me various questions based on the procedure followed results and different definitions in Neural networks and the reason for using that approach and later asked me to solve a problem statement using Convolutional Neural Network. Then they asked me write the entire code Conv Net model in C.

Followed by simple questions on Binary Tree, Linked Lists

Round 2: [Puzzles]: Most of the questions based on JEE rank and CG drop in between then 3 puzzles.

- 6 white socks, 6 black socks minimum number of socks one needs to pick blindfolded so that he can find a pair. (Ans - 3).

- If you color the outside of a solid white cube to black and cut it into 64 equal pieces how many such small cubes will not have any black face
- There are 1000 customers and 3 telecom companies out of 1000 customers only 50 customers are paying customers, jio is the new entrant in the telecom field, what are the minimum number of customers jio has to acquire to get equal profit as others, jio also has a Magic wand when used can convert a paying customer to non paying and vice versa (I answered 25, because when we take 25 customers and apply magic wand on everyone then jio has 25)
- paying customers and others have maximum of 25 paying customers, they said 25 is not the minimum it can go less than 25).
- Then they asked questions about oracle ppt

Round 3: [HR]

3 Achievements & Regrets

CG drop ?

Describe yourself

Rovi corporation, Anywhere please share

Samsung Bangalore interview questions anyone??

Samsung Bangalore Interview:

The process was very simple. It had two rounds, 1 Technical and 1 HR.

1st Round: Technical Interview:

The interviewer was very good and asked me to introduce myself. I introduced myself and then he started scanning my resume. Then he asked me about my projects. This time I explained my projects in a slightly different way. I started with the motivation for each project and its possible real life use cases. Then I explained about the details about the project first the theoretical and then some practical details like the language, tools, modules, etc. He seemed quite impressed.

Next, he started with some puzzles. Wow, I got excited. He drew a 8×8 square map (say chess board) and then he drew two circles of different radius (integer radius) with centre at the centre of square. After that he asked me how many squares lie in the region between the circles. So, I told him that for a square to lie in the desired region, all its four vertices should lie in that region.

so, equation of circle1 : $x^2+y^2=r_1^2$

and equation of circle2: $x^2+y^2=r_2^2$

Hence all the four points of each square should have the property,

$$r_1 \leq x^2 + y^2 \leq r_2$$

Then he asked me another puzzle. He drew some some bars of different height and then told that if a ball was dropped on one of the bars, then, the ball would continue to roll to the righter bars if they have less height. So, he asked me how would I determine, where to drop the ball so that it travels the maximum distance. At first, I didn't quite get the nitch in the question. So, I started brainstorming the question and after 45 seconds, it suddenly flashed to me that this was in fact a longest decreasing subarray. So, he asked me how would I compute that. I stated that it could be done using dp (or kadane algo). He said good.

Then he asked me what I think about Samsung. I gave a very smart answer. He seemed satisfied. Then, he asked me if I had any question. So I asked him if he could give me a review of the subsegment of SRIB and I was really surprised when he gave me a detailed introduction of what every segment of the research institute does. He also told me that we can select our project according to our interest. So, he told me that when I join samsung, I can give a list of priorities and I was excited and confident that I would be selected. Then I came out.

2nd Round: I waited for the HR interview to be conducted. And after 45 minutes, I was told that I need to give an HR. Ok, so, I was happy that I have made to the HR round and became solid confident. My HR round went decently. And then, I was told that the results will be announced later. And, the next morning, the happy news was there. :)

[^] the above is pretty much what happened to me too. Except that instead of the chess puzzle, it was a method to improve the placements notification system in IIT placements.

Walmart Interview Questions anyone ?? IITG IITR ?? study how walmart works all questions were on data structures, system design how will you implement this service of walmart labs etc.

IITB Walmart:

1st round:

It is based on data structures and algorithm. The first question was based on a binary tree(don't remember exactly but was to be solved in $O(n\log n)$ time).

The other question was based on a binary array(contains 0s and 1s, or bool values if you will), and the task was to find two indexes(i and j) such that if you replace all elements between i and j, the number of 1s in the array will be minimized. Can be done using DP in $O(n)$.

The third question was that I have n given a continuous stream of ints and have to find the first int that repeats. Two solutions: hashmap and bitarray.

Second round:

It was kinda HR(not exactly). The guy was really friendly and asked me what my hobbies are. Then he gave me multiple scenarios which I will encounter on my work life and how will I react to those. The guy made me really comfortable and we even laughed at some jokes. That round was really fun.

Third round:

The interview started with puzzles. He first asked me the puzzle on 100 floor building and two eggs(very standard). When I solved it, he gave me some more. Solved them too. He then told me that this one is going to be really hard, and then gave me inductive puzzle(read wikipedia article on how to solve those, really hard to think on the spot). He was really impressed and told me: "no more puzzles for you".

Then he asked about some of the core CS concepts like OS, compilers and networks. Being a CS student, I answered most of them.

Fourth round:

HR round. Asked me about how I was doing, which other companies I applied that day and the general HR questions. Went good.

**Got placed in WalmartLabs but got selected in other firms on the previous slot.
So couldn't do anything about it.**

Is Cairn India visiting other IITs? If yes, when?

**Ola Shortlist anywhere?came out @bhu....only criteria was that you have to be
from CSE branch**

Amazon SDE interview questions ?

**Sears IT and Management Interview questions for analyst and operations analyst
koi batao yar ?(+1 +1 +1+1)
Sears CTC breakup??#[+8]**

Dr Reddy's (chemical engineering)??? Test at an

TESCO interview questions please?

s Roorkee junta ..SEARS ka qstns post karo bhai!

100 horses puzzle

Boundary traversal

So

me easy puzzles

**29 coins(19 having heads and 10 having tails on the front side) lies on a table divide
into two groups having equal number of heads ? (Ans : flip 19 coins(gp1) and 10
coins(gp2))**

**Random questions to check if your mind is there or not (like for how long can you
balance a stationary cycle)**

Milk container size (50 l) how many min container

Tonight in k. Any other iit, when? day2 slot2@bhu

Tomorrow morning in IITG

Did Microsoft visit for Technical Evangelist profile anywhere? Not in k not in bhu. Yep, hamare yaha pe! :P

Worksapp questions anyone? IITH&&IITG???

Batade bhai [+8]

Hey, worksapp will ask to implement something on top of the problem asked for test. Be prepared with your code.

Real time coding with guys from Singapore. It will be really simple. But you should know your code. Afterwards there will be a simple aptitude test 10 mins. What did they ask to implement specifically??[+5] Please tell the exact questions....

Modification of your code submitted for coding round for a modified problem.

1) Given an array A, print all unique triplets whose sum is 0.

2) Given an array A, print the triplet whose sum is closest to target t.

3) Find pivot of sorted rotated array

4) ERP: Full form+definition. Browse thru worksapp website

5) Merge k sorted linked list.

6) Look thru glassdoor archive. Questions are repeated.

7) Will update more tomm. Tired.[please update...]

8) Arrange given numbers to form the biggest number

<http://www.geeksforgeeks.org/given-an-array-of-numbers-arrange-the-numbers-to-form-the-biggest-number/>

9) Length of the longest valid substring -

<http://www.geeksforgeeks.org/length-of-the-longest-valid-substring/>

10) <http://www.geeksforgeeks.org/find-the-element-that-appears-once/>

HR) Deep discussion on the projects, not much technical apart from those in the project.

Sears holdings interview process for Software ???? (+9)

Codenation shortlist any IIT?? they have shortlisted people who have even done 2 questions in the 1st round +debug round (at least for CSE)
Edgeverve schedule arrival ? Please revert

Guys need help. I have n shortlisted for works app (60,00,000JPY = 36 lakhs = approx 72k SGD before tax deduction in singapore) and oracle india (19.5 lakhs much gross) for which one should i prepare well ? I heard that in singapore you can't save it's too expensive. I have interned in singapore. My estimate is that 4k SGD will be enough for a bachelor in Singapore. How many questions did you solve ? 2 questions GPA ? → between 8 and 9. (live like a bit above ordinary person in singapore vs live like a rich person in India but there's a catch you get to live in singapore!!) Go for Oracle India. Rgan

Works Appl. has a poor work culture and provides only 12 days leave in a year.

Guys Treebo Hotels test pattern and questions plz? [+1+1+1]

Guys Axtria test pattern and questions Alethe labs test pattern and questions plz?

Buyhatke Backend and UI profiles Test pattern and questions plz? [+2]

SAP India Test pattern and questions plz? [+1+1] absolute trash question paper came [what type of questions did they ask? Apti?]

Droom profiles and test questions anywhere? [+2]

Vizury test anywhere? Help plz

Jio test pattern and questions plz?

Times internet test anyone any idea ?[+2]

Batado koi Please!!

Microsoft groupfly questions anyone?

@IITR -

- 1) [rearrange-characters-in-string-with-no-adjacent-duplicate-characters](#)
- 2) <http://www.geeksforgeeks.org/minimum-length-unsorted-subarray-sorting-which-makes-the-complete-array-sorted/>

@IIT k -

- (1) <http://www.geeksforgeeks.org/print-nodes-distance-k-given-node-binary-tree/>
- (2)

, Amex shortlisted 15 guys and it is almost clear that there is no relation between test and shortlist.

Criterion of shortlist?? Any idea??

Ye amex wale itna time kyun laga rahe hain

Microsoft interview questions anyone??

Oracle (MTS) interview questions anyone??

maEXL Analytics ?? Please post the questions-

EXL@iitb => 40 ques 45min (10 verbal + 10 analytical + 20 qunat) with -0.25 negative marking @ cocubes

Amazon Data Scientist Questions anyone?

Microsoft shortlist criteria other IITs ???

Is it strictly 2/2+ questions ?? IITB ?? yes

CISCO test 29th nov 2016 iit k:

Basic questions of quant, c++, c, electronics few basic questions-digital elec part, cutoff seems to go too high..

Ola cabs management trainee profile questions anyone ? No test for management trainee profile in k (Resume Shortlist)(shortlist out ???)- Withdraw

Ola Management trainee withdrew from IITR, IIT k

No test for the same profile at IITB too

ppl can share interview slot details or can upload them here:

<https://docs.google.com/document/d/1tok6FcSpqANjEhvgNUonLWopKiGH9Qzy6rCulzEIWs4/edit>

TIM

//was there any MCQ round for microsoft before coding round? Not in k, Not in IITBHU
...thanks for the info :)

Please share Times Internet questions

Texas Instruments, Shortlisting at IITG had n so messed up. Its nothing but a cpi filtering. >8.5 (may be) they conduct a test just to make it appear that everyone gets a fair chance ← All Day1 companies are just the same!

MasterCard Questions anyone ?someone please post mastercard question[opens](#):

Ola@IITG Management trainee(cocubes platform) 20Eng-20LR-20Quant - 60mins

Level of questions? LR,eng- easy quant-medium

Ola@IITG Data Scientist(cocubes platform-same for IITB)

10Eng-10LR-10Quant - 30mins

And also 10 data science questions- 20 mins

What type of data science questions?Probability questions (Expected value)

Ola @iitbhu:::software developer (What was the platform??)cocubes

40ques in 40 mins:::logical reasoning+english+quant (medium??)

2 coding in 45 mins(very easy):::

- 1) U have to select any k(given) numbers from an array(given), find the minimum possible difference between the max and min of selected k numbers.

^^ Provide the link for the above problem.its very simple....i don't think there will be any solution online

Sort the array and minimise (arr[i+k-1] -arr[i]) where i=0 to arr.length-k

- 2) Form numbers from all root to leaf path in a binary tree and return their sum.

<http://www.geeksforgeeks.org/sum-numbers-formed-root-leaf-paths/>

Eg:

```
      1
     /   \
    2     3
```

Ans:::return 25, i.e 12+13

Ola @iitk:::software developer

Coding questions :

- 1) Maximum contiguous subarray.
- 2) <http://www.geeksforgeeks.org/longest-even-length-substring-sum-first-second-half>

Data science questions please?wa

<https://drive.google.com/open?id=0B2vHIJgcS7UjZjVKd0IkY29wWGM> -- now working

Level same as MT

EXL questions anyone please? Simple quant ,DI cocubes 60 mins test

Format of the test?

Times Internet questions?

Any information on opening new tab while online test for google search or anything ? Hackerrank||hackerearth platform? Does it really notified to platform ? Yes.

TIMES QUESTIONS PLEASE

Oracle shortlist any IIT? ?? IITBHU

Yes IITM. Yes IITR, IITD, Yes IITG, IIT-k(US Profile)

Different criteria for different profiles.

**Texas Instruments(Signal Processing) Anyone??? Please
OLA(DS/MT profiles) questions anyone??worksapp**

MS Shortlist at IITM:

CG 8 cutoff for Males

6.5 cutoff for Females

IITG

Date: 1 December 2016 Slot 1:

12:00AM – 5:00AM

Works Applications What was the criteria for shortlist in Works

Application?(solved all 2 questions?) No people solving one question also shortlisted at IITH, many people at IITR not shortlisted after doing both, did both questions in optimized manner still not shortlisted in IITD(pointer issue?) yes pointers matter. No it doesn't in IITH,IITBHU

What is the cut off pointer for Works Application ? 8 ? last time I know a person with around 7cgpa got shortlisted in Worksapp.

edsEMERSON NETWORK POWER ANYONE?

Applied Materials test anyone??

IITG, your paytm test is done right? Please post your questions here.

- 1) <http://www.geeksforgeeks.org/find-k-closest-elements-given-value/>
<http://www.geeksforgeeks.org/delete-n-nodes-after-m-nodes-of-a-linked-list/>
- 2) <http://www.geeksforgeeks.org/transform-one-string-to-another-using-minimum-number-of-given-operation>

Paytm at IITR (Cocubes, 3 ques, 70 mins)

- 1) <http://www.geeksforgeeks.org/rearrange-array-alternating-positive-negative-items-o1-extra-space/>
<http://www.geeksforgeeks.org/move-zeroes-end-array/>
- 2)
- 3) <http://www.geeksforgeeks.org/find-closest-leaf-binary-tree/>

IITG guys please add Hewlett Packard questions. ??

Aptitude and basic oops, os and ds.

IITD and IITK People please add cisco questions.

Cisco had aptitude and core CS and Elec questions. Very easy test

CS,EE questions : Very basic OS, Networks. Predict the output type questions, mostly OOPS.

Delay, computer architecture, about interrupts in Microprocessors.

Aptitude : Easy to moderate.

Same test for all profiles.

Please respond.

**ANYONE KNOW THE REASON WHY COMPANIES ARE NOT COMING THIS TIME
like ADOBE,AMAZON - in k (if any else)?(at iitb also)**

Adobe: too many PPOs, kangal ho gai ab.

OLA cab (management trainee profile)?? Any ??test pattern ??

IIT Kanpur people Please add OLA cabs question Paper.

Test was postponed at IITK. It will be held on 29th Nov. Time??

Test also postponed at IITD. 29th Time?? fF

IITB also 29th IITG also 29th 11 PM. Same at IITBHU Same at IITM

OLA please post questions

SBI Funds AI specialist exam pattern ??? ==> Will ask you to write the approach/algorithm to predict the stock capability on paper. Then you will be provided with training and test data and you will have to send your code to their mail id.

Excel file of 350 companies to train a model (do not use linear models) and predict on 150 companies (from another excel file).

Is target corporation coming to roorkee or not NO

Oxane Partners Questions, Please??

For oxane aspirants,

Apti quite easy

20 questions

one question on chessboard in which find prob of selecting 2 smallest squares such that they don't share common side . Ans- 1/18

All rest of apti were very easy.

General awareness section ;

Chairman of FED US - Jane

PM of england

1USD=110 JPY

Finance section :

10 questions.

Portfolio something.

Some standard deviation question for 12 months .ans is $\sqrt{12}$.

Another question on Bond prices and interest rates go in different or same directions.?r 12

IITB, IITBHU Kindly share NVIDIA criteria.. Is it Cgpa>7?? 7.5

IITG - 7 is cutoff

Did directi declare result anywhere after the interviews? Yes k- 24 people got shortlisted

What about AMEX? Did they release shortlist in any IIT? Yes in roorkee

What was the criteria ?

Rovi, Clustr Anyone?

Reliance Paper Anyone?

Anyuest in any IIT ?

Guyz Please post the Dynamic Technology Lab's questions here. It is not visible in Revision History

Does any iit got dynamic tech lab's shortlist????

Has shortlisting done anywhere for Dytech lab??

veritas technologies anywhere??

MS only shortlisted 9+ CG people at k (did this happen anywhere else too?)

People with CG < 9 (M.Tech) also got selected in CS Department (for MS) at IITk and they haven't solved all 3 questions.

In adding 2 number without using arithmetic operator many used increment operator while using loop. Many who did not get selected did the same mistake. (I solved it without any '+' syb ...)

The shortlist is given for groupfly only. I think there is going to be another shortlist - How do you know about that. Because if this was the case then why will call many good people (9+ CG and solved almost 3 question) for groupfly? Last year for interns and as well as placements they have given 2 shortlists (group fly and direct interview).I am not sure whats gng to happen this time. Don't bank on this. Confirm with placecoms. Those whad done pretty well (and >9 cg ofc) are also there in the groupfly.

No other shortlist will come out, this is the final(asked placecomm)

Based on the Tests too, right ? - No

Test was not given any weight at all. CS(8)+EE(8)+EC(14)+Instrumentation (lots of M.Tech students(19) in the list, so 50 people have cg of 9+)

That's shocking

That means who has solved all the questions was not selected ifff his CG<9? Yup.

Those who solved 1-1.5 questions out of 3 were shortlisted if cg>9.

Amazon is not visiting any other iits???? litk dec 2,IITBHU(DEC 1) iitb(dec2)

Directi number of questions to get shortlisted?- mostly all(3)

IITH(43) ,IITG got qualcomm shortlist (How many) How many pata nhi chalta hai bro IITG me, chutiye hai Placement Team wale. IITk around 75 students shortlisted.

What is final say on Adobe? WHich IITS is it actually visiting? None

-How do you know Adobe is not visiting any IIT? -> official mail in IITG

IBM Cognitive Data Scientist --- did IBM visited any IIT for this profile, if yes --- please share the exam pattern

Yes in IITG, There are two tests IPAT and Kenexa Business writing Test.First Test had 36 Questions (18-Series Questions, 18 - Quant Apti (CAT Type) You can use a

Calculator for first test , please make sure that you carry it otherwise you would be using screen calculator, fuckers (ChOdU) didn't tell us about calci in IITG.

Kenexa Business - English grammar, Formal letter format etc. (MCQ type questions , you had to choose best option) -- thanks man :)

IITB they have opened the profile but the test was general apti.

VMWARE shortlist released somewhere?? If yes, how many students were shortlisted?IITk 62--thnx..anywhere else..please update it as soon as it releases

VMWARE IIT ROORKEE 23rd November:

Three Sections, Apti, Technical. The apti is hard level. Technical came from few NEtworking and c++output. The C++/Java is easy.

HSBC ANALYST (IIT ROORKEE) : IS THIS THE SAME PROFILE AS TRAINEE SOFTWARE ENGINEER ? No. Different profile

2 coding questions from a basket of questions

Dynamic Technology Lab, IITM the questions have n deleted. Can someone post them back? +1

Why does someone do that yaar? Go to File-> See Revision History. Search thru' the previous versions. I guess they were scanned images. Please upload them here if possible (will make this doc light):

<https://drive.google.com/drive/folders/0BxrntqAdd7pvclRqRWVCV0d6S28>

Any idea about uber interview process? Please Respond !!

OLA Anyone questions ?

OLA QUESTIONS ANYONE ??? WHAT DID THEY ASK FOR DATA SCIENCE PROFILE???

IIT BHU ,IIT D People please update OLA question pattern. Whether it was Pen Paper based or Online?? Ola isn't coming to IITM. NO! Ola is coming to IITM through ANI technologies. Test on 29th 11pm - 2 am.

Ola hasn't yet conducted its test in IITBHU,IITD,IITR IITD

Ola test is on 29 Nov in IITB in the morning.....PLEASE UPDATE QUESTION/PATTERN AT EARLIEST

OLAtest conducted by CoCubes at IIT k. (Research Engineer) 1st section no negative marking, 2nd section (technical) negative marking

@IITG Management trainee(cocubes platform) 20Eng-20LR-20Quant - 60mins

IS Paytm Test conducted in any IIT?? Yet to be conducted @iitbhu date??29 Nov Paytm in IITM on 28th Nov at 11pm

Rivigo questions any IIT, Please?-Really random 4 questions. All of them tough. (one was converting inorder traversal to preorder. That was the most simple) None I know, did more than 2 questions.

Oxane Partners Questions, Please??

Yesterday , GE digital people came and announced that the interviews will be conducted tomorrow morning. This happened anywhere else too?? where???IIT ROORKEE. Well, they might not have enough panels to conduct in all IITs in December. Also, please do share the details of interviews.

GE: Do share the interview details once it is over.

Has Samsung visited any other IIT except k for its HME profile? What's HME? Not in IITM.

What is HME? Healthcare and Medical Equipments

i3 Consulting Any IIT?? Why would i3 consult an IIT? :P

Citi CISCO CTC Break up

??

People, please post questions of:

Rivigo

Rovi

IITD junta, Please share the Cisco Test Pattern ? CTC? Platform?

Sears Questions, Please ? scroll down

IS SAMSUNG (BANG.) SHORTLIST OuT in ANY IIT? Has it shortlisted all who solved the question with all test cases passed? Yeah. it shortlists only those who passes all tc.In which IIT shortlists out?? litbhu.. How many get shortlisted??LOL

Did they considered the CPI or anyone passing all cases was shortlisted? Anyone passing all cases

IITH also same criteria

You need to pass all test cases. That's what the 3 hours are for.

Which International Profiles have registered this year?

Uber (75 lacs+ x lacs stocks/benefits = 1.2 crores), (Itna paisa :O)

Microsoft (ctc-\$135,000, base - \$105,000),

Oracle(\$125,0r00 + \$50,000 stocks [distributed over 5 years]),

Sprinklr(take home-\$140,000, ctc same) then?

Uber international is 1.2cr,

Rovi corporation, Anywhere please share

VMWARE? NVIDIA? Morgan Stanley?

TOWER(13) and IBM(33) shortlist out at k. Bro is it IBM Research? Yes, bro :) IBM cognitive data science?

Indeed:

CitiGGroup Analyst Profile.

Visa Inc.: IITM 27th No

Clustr:

Schlumberger Software Engineer Profile:

Yodlee ?????IITG

Query Section:

Morgan Stacoding

Coding 1:

NVIDIA IIB (IS IT FOR ASIC ENGINEER ?)

CGPA criteria?? 7

Pen and Paper Test.

3 sections,

All MCQ with no negative marking.

- 1) C/C++ -> input output
- 2) ut, inheritance
- 3) OS
- 4) Aptitude

★ Zombie Terror

Sam bought a new video game **Zombie Terror**. This game consists of **n** cells lie horizontally from left to right as indexing **1 to n**. Each home cell has a value **k**, that is the zombie that come out from this cell can roam upto **k** adjacent cells from its home. The p multiple zombies present on any cell at a same time. Sam has to begin his game from the safest cell. Help Sam to find number of You are given **n** ans description of each cell. Print number of cells where no zombie can reach.

Complete the solution function in your editor. It has **1** parameters:

1. A integer array of size **n**, **arr**, contains description of the cells.
It must return an integer represents number of cells where no zombie can reach.

Input Format

The locked stub code in your editor reads the following input from stdin and passes it to your function:

First line contains single integer **n**.

Followed by **n** lines, each represents **k** of that cell.

Constraints

- $1 \leq n \leq 200000$
- $0 \leq k \leq 100000$

Output Format

Your function must return an integer, number of cells where no zombie can reach. This is printed to stdout by the locked stub cc

Sample Input 1

C/C++/OS were easy. Aptitude was time consuming, so save time for it.

NVIDIA HARDWARE profile??

★ Fun With Palindromes

Problem Statement

A *palindrome* is a word, phrase, number, or other sequence of characters which reads the same forward and backwards. For example: "madam" and "dad" are palindromes, but "sir" and "sad" are not.

The *fun score* for two *subsequences*, *A* and *B*, in string *s* is the product of their respective lengths. There are many ways to choose *A* and *B*, but your goal is to maximize the *fun score*. There can't be any overlap or crossover between the two subsequences.

Given string *s*, select exactly two non-overlapping palindromic subsequences, *A* and *B*, from *s* to maximize the *fun score*.

Constraints

- $1 < |s| \leq 3000$
- s* is composed of lowercase English characters.

Input Format

Complete a function named **funPal** which takes a single string (*s*) as a parameter.

Output Format

Return a single integer denoting the maximum possible *fun score* for *s*.

Sample Input 0

```
acdapmpomp
```

Sample Output 0

```
15
```

Morgan Stanley @IITB 22-Nov



☰

?

8

9

10

11

12

13

14

15

16

17

18

19

20

Sample Input 22
1
2**Sample Output 2**

0

Explanation**Sample Case 1**

There are **7** plain lands and **2** zombie's home. First zombie come out from index **3** with **k** value **1**. It can walk on cells with index **2**, **3** and **4**. Second zombie come out from index **6** with **k** value **2**. It can walk on cells indexing **4**, **5**, **6**, **7**, and **8**. Therefore cells with index **1** and **9** are not visited by any zombie so they are safe.

Sample Case 2

There are no cell where zombie can not reach. Both the cells are zombie's home.

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour.

[Start tour](#)

✖

Draft saved 06:51 pm

Original code

C++

▼



1 ► #include ↗

The screenshot shows a Hackerrank contest interface. At the top, it displays "Morgan Stanley - IIT Mumbai 2016", a timer "11m : 51s to test end", a progress bar indicating "19/21 Attempted", and the user "Sandeep Rai". The main area is titled "Aladdin and magical carpet". The problem statement describes Aladdin's journey around a circular path with magical sources. It asks to implement a function "source" that takes two arrays, "magic" and "dist", and returns the starting point where Aladdin can start his journey to cover all sources. The function signature is `int source(int magic[], int dist[], int n)`. The input format is described as follows:

The locked stub code in your editor reads the following input from `stdin` and passes it to your function:
The first line contains an integer n .
Next n lines contain an integer in each line where integer in i^{th} line denotes $magic_i$.
Next line contains an integer n .
Next n lines contain an integer in each line where integer in i^{th} line denotes $dist_i$.

Constraints

- $1 \leq n \leq 100000$
- $0 \leq magic_i \leq 10000$
- $0 \leq dist_i \leq 10000$

Below the problem statement is a URL: <https://www.hackerrank.com/tests/gfcnperj6b6/questions/5a3a89isf6k>

4

SRI-Delhi????? URGENT search the doc below, has same pattern and qs as bangalore

Indeed India IIT Bombay

[-the-heights/](#)

<http://www.geeksforgeeks.org/minimize-the-maximum-difference-between-the-heights/>

★ Minimum Weight Path in a Directed Graph

We define an *directed graph*, g , such that:

- The total number of nodes in the graph is g_nodes .
- The nodes are numbered sequentially as $1, 2, 3, \dots, g_nodes$.
- The total number of edges in the graph is g_edges .
- Each edge connects two distinct nodes (i.e., no edge connects a node to itself).
- The weight of the edge connecting nodes $g_from[i]$ and $g_to[i]$ is $g_weight[i]$.
- The edge connecting nodes $g_from[i]$ and $g_to[i]$ is directed. In other words, it describes a path only in the direction $g_from[i] \rightarrow g_to[i]$.

We define the *weight* of a path from node 1 to node g_nodes to be the sum of all edges traversed on that path.

Complete the *minCost* function in the editor below. It has four parameters:

1. An integer, g_nodes , denoting the number of nodes in graph g .
2. An array of integers, g_from , where each $g_from[i]$ denotes the starting (source) node of the i^{th} directed edge in graph g .
3. An array of integers, g_to , where each $g_to[i]$ denotes the ending (target) node of the i^{th} directed edge in graph g .
4. An array of integers, g_weight , where each $g_weight[i]$ denotes the weight of the i^{th} directed edge in graph g .

You must find the path from node 1 to node g_nodes having the minimum possible weight. You can add extra directed edges having weight 1 (one) between any two distinct nodes that are not already connected by an edge. The function must return an integer denoting the minimum possible weight of any path from node 1 to node g_nodes .

Input Format

Locked stub code in the editor reads the following input from `stdin` and passes it to the function:

The first line contains two space-separated integers describing the respective values of g_nodes and g_edges .

Each line i of the g_edges subsequent lines contains three space-separated integers describing the respective values of $g_from[i]$, $g_to[i]$, and $g_weight[i]$.

Constraints

- $3 \leq g_nodes \leq 10^3$
- $1 \leq g_edges \leq \min(10^4, (g_nodes \times (g_nodes - 1)) / 2)$
- $1 \leq g_weight[i] \leq 10^6$

Output Format

<https://www.codechef.com/problems/IISCH05>

INDEED ANSWERS:

1. Shrinking Line: this is a simple dp problem. Use $(i, \text{minIndex}, \text{maxIndex})$ as the dp parameters. In the base case simply return $a[\text{maxIndex}] - a[\text{minIndex}]$.
2. Dijkstra(standard).
3. Use dp again

Edelweiss test pattern ?any iit?

@IITBHU same@ IITR

1st section 6min 30 ques (basic addition, multi, calculations)

2nd section 20min 20 ques (apn be easily cleared if aptitude, coaching for CAT)

3rd section 15 min 15 ques (pattern matching, very easy)

Any idea of **ROBERT BOSCH?? CTC only 8 LAC @IITB**

Is it visiting any iit this year ? k **PROCESS PLZZZZ.....**

Process dal do yaar koi → Robert bosch just opened at IITB no further details as of now. Will update asap. IITM also.Same at k

Please post CodeNation Debug Round questions.

Can someone update about the shortlist of different companies as and when they come? - no of people shortlisted for each profile and possible criteria. Bro, that would not be accurate as only Placement Team would know the statistics.

Have ONGC visited IIT Bombay if yes then guys please share the questions . Test not done yet

They won't be having test directly going to shortlist students

IITD Junta..

Guys, what does quadeye securities asks in interview..? Is there a stress interview...?SAP

Its coming to IITB for the first time...

SRI-NOIDA ? - Any iit ? - Urgent...posted below in doc

IITG - 2 coloring problem

IITR - same problem which came in k for SRI-B(rock climbing)

Paytm coming to any IIT?? Plz post ques/pattern

Yes Date of test not confirmed for IITG

IIT BHU 29th Nov

IITG 26th November

IITR 29th NOV

IITM 28th Nov

IITB 30th Nov

JP MORGAN(QUANT RESEARCH)

Mumbai - ctc fixed 1965000. takehome fixed 1400000. Takehome variable 490000
(source k)

NDEED ANSWERS:

3. Shrinking Line: this is a simple dp problem. Use (i, minIndex, maxIndex) as the dp parameters. In the base case simply return $a[\maxIndex] - a[\minIndex]$.
4. D
5. ijkstra(standard).
3. Use dp again
 - 1.

Note : Students who performed well in the exam were given preference.

Does Fuji Xerox also have 11 month internship offer as part of Placements in other Institutes? That would be so difficult. A risk of getting fired after internship.

GE digital questions ?? Platform ---???? COcubes"

Which platform ??

Held at IIT K on 19th..Cocubes.....

(DI,QUANT, TECHNICAL) : 60 min 60 questions

1 hr coding: 2 QUESTIONS IN CODING(5 marks+3 marks), DIFFERENT FOR EVERYONE

GE digital - Coding questions were very easy.

(1) Find cumulative sum - like for n=3, ans = ((1) + (1+2) + (1+2+3))

(2) Find nth smallest number in BST

GE Digital @IIT BHU

{ 1 hour MCQ's - Quant + DI + Technical(OOPS,DBMS,Networking)}

{2 questions in 1 hour - Lowest Common Parent,Reverse Linked List after K nodes, from n bit numbers and add all which has s no of set bits}

What is the level of questions that we

are asked in OOPS? Not much of OOPS, networks was a bit difficult

Also which language? C++ or Java

Can you give some examples of questions being asked in Technical section? Which sort has minimum no of swap: selection sort

Does Microsoft have GD in other institutes? At IITM, they have scheduled a GD on 30th November. For both domestic & international. Yes, they have it every year and is scheduled on 30 th @IIT BHU too. [IITK also have GD round.](#)

How many students are shortlisted for GD of Microsoft? How many questions you needed to solve to get shortlisted for gd? Please answer. Some one please

correct me if I am wrong. As far as I know, people who have done very well in the test will go to interview stage directly, others will have gd, which they call as group-fly round where we will be asked to code using pen and paper.....@iitbhu.....everybody will have GD....no direct interview

**HOW MANY STUDENTS GET SHORTLISTED FOR GROUP FLY ROUND OF MICROSOFT AND HOW MANY QUESTIONS SHOULD WE SOLVE TO GET SHORTLISTED?($\frac{1}{2}$ the number of people who write coding test to my knowledge)
Everyone shortlisted appeared for GD Fly, solving $\frac{2}{3}$ should be good enough. It might be relative. HOW many (number) they selected for FLY ROUND?**

Is Amazon having GD rounds in any of the institutes? Not in IITM. Not in IITk. Not in IITB. Not in IITBHU. Not in IITK

Amazon: Was there any CGPA based shortlisting before test?[no](#) .Any idea about **HOW MANY STUDENTS GET SHORTLISTED and HOW MANY QUESTIONS SHOULD WE SOLVE TO GET SHORTLISTED ?**

[39 at IITK.](#)

IITk guys AMEX questions??????

Information about Verbal part please ???

- Very easy quant aptitude MCQs(20 questions & 45 minutes time)
- Only quant ,No Verbal ???

AmEx questions and topics please! --- Quant , few questions about sufficiency of two given statements to answer the third. Finding next pattern in the series angle of elevation depression questions, probability, ages, averages ,find the odd figure out

Texas Instruments (software Profile) ???

Software profile (texas)-Which IIT? k

20 questions - 90 min

10-aptitude

10-coding(debugging and time complexity)

Is Adobe visiting any IIT?? Hv heard that it is cancelling its visit to some IITs. Any updates??Cancelled at iitbhu, IITM too! Woah, this is unexpected! Any idea why? Seems they gave lot of PPOs, is it? This was a goto company for ppl not getting at Day 0 slots. Cancelled at IITk

Q) URGENT: Adobe cancelled at k?? -----> who said this? Did anyone receive any official confirmation? Yes, asked placecomms it is cancelled

Is Indeed visiting any institutes other than IITM? Please update on the questions. Yes IITB, exam is on 21st November. Test got canceled at IIT-B.Will be conducted later.

WHEN IS INDEED TEST IN IITM? Please update the questions if the test is done at IITM.

SmartPrix Web India?

Sears CTC breakup?

Societe Generale CTC Breakup?at IITM it is 1.25 lpm + 2I joining bonus. What abhuout other institute?same@iitbhu profile konsa h Sr.Software engineer?? Haan.

Thanks man

sakshamjindal.iitk@gmail.com

Placement Questions 2016-2017

Comments Share

FileEditViewInsertFormatToolsTableAdd-onsHelpSee new changes

Arial

A

Editing

To enable screen reader support, press shortcut Ctrl+Alt+Z. To learn about keyboard shortcuts, press shortcut Ctrl+slash.

98765432112345678

Is bpcl recruiting students from civil
engineering branch ?? any other information
about PSUs ? (in which IIT is BPCL coming?)
Yes @iitbhu

CAPGEMINI INTERVIEW QUESTIONS
ANYONE??
BPCL anyone??

KISI NE KUCH UDAYA TO BC MC AGAR
60 LOG SHORTLIST HUYE HO TO MC
61ST TU HOGA!!!

Anybody got offer letter ?? Did companies started sending offer letters?? YES. which company? Sprinklr, gurgaon(yes!!20LPA). Reliance Jio, Tata Innovation Labs, Qualcomm
In which IITs has HPCL registered?
k

Guys what is the minimum CGPA requi
How many are shortlisted in other IIT'S in IITG 25 are shortlisted.Any idea about the interview??

When is Visa for other institutes? IITM 27th Nov. IITB 27th November

VISA IITk?? Is it visiting or not? Nope, not coming at k?? Why?? Is that verified from CDC. Yes, they did not register :(:(

AMERICAN EXPRESS QUESTION IIT k,IIT M,IIT D Please.!!!!?

AmEx in IITM on 27th Nov.

k - 17th Nov k students please post AMEX questions after the exam

IIT Guwahati -19th Nov

IITB- 24th Nov

Please amex ka link daalo

k Walon test link daal do yar Amex ka mettl.com

Amex:20 questions, 45 minutes, very simple quant, [topic??]

Only quant or quant + verbal + L.R. ???

Atleast topics hi bta do yaar ___

School level paper yaar, indiabix has better questions than the test

One was : height of tree is $6\sqrt{3}$, angle of elevation from a point is 30 degree, find the distance from the point,

)AMEX QUESTIONS??

Important: It's time for interviews, people. Although there are numerous resources out there, but if you have some unique material, which could be helpful for interviews (like past interview experiences collected by your placement team, materials on DC++ etc.), kindly post it in this link:

Pogies, Juniper, Adobe, Securifi, Burning Glass, CROWDFIRE, Tesco Bengaluru, Futures First, Walmart Labs, Paypal, JivoX, Riverbed Technologies, Microsoft, MediaTek, Qualcomm, Uber, Credit Suisse, Headout, Nutanix, JP Morgan, Codenation, Estee, Dell, Oracle, Cisco, Intel, JP Morgan, Yahoo Japan, Sandvine, Rakuten

Query Section-

I think that only IITk people upload questions in this doc and rest of the people do not cooperate. Please co-operate, otherwise there is no benefit of this doc

-We all agree

IIT Bombay guys are regularly updating the doc

IITG Guys are updating as well, BC ab guwahati me itne companies nhi aati jitni bombay , delhi , k me aati hai toh ham kya kare. Lol, bro I understand your pain.- Same goes for BHU as well :P

Has NVIDIA visited any IIT ? Questions & CTC ?? 1428456

Coming to iitbhu...date not specified

Coming to iitr : Date not specified : 1428456(UG) & 1591132(PG)

Has Samsung Noida(R&D) visited any IIT? Please post the coding round question.came to iitbhu....repeated question...the question has n posted earlier on this doc

IITG-2

American Express Management Trainee CTC???

CTC- 14LPA? Yes

Questions????

Mathworks Questions???

Duration : 90 min

For CS Profile :

Very easy question. There will be total 33 questions divided into 7 sub categories:

- 1) Prog. Concepts (8 questions) (Compulsory)
- 2) Maths (Quant) (8 questions) (Compulsory)

They will provide option to select 3 subcategories out of 5 categories depending on the prog language you know (2 from these three (C,C++,JAVA) and 1 from these two (Matlab/Python))

Selected MATLAB,C ,C++

In C : Two coding questions -- Q) Difficulty ????????

In C++ : Two Coding questions

In matlab : 9 MCQ's based on matlab syntax

In Java: 2 coding questions

In python: 2 coding questions

Ola cabs going anywhere? Yeah IITM. anywhere else? IITBHU as well for 2 profiles, same for IITD as well.

When is the test for Ola? Pattern please...What profiles is it visiting IITD for?-

Data Science, SDE

IIT Roorkee: SDE, Research Engineer

DESHAW- pattern plzzz???? 50 min - 2 coding questions. 1 very easy another one is easy - 3d DP. 20 min technical questions(10 questions). 20 min quant(IITG).

AXIS BANK? Question paper? Kind of questions asked? (any idea)

- **Yes, In IITM. Has it conducted test in any IIT so far?**

- It was a very exhausting test. Very boring and long. There will be video questions. Which sort of Ques? What topics are covered??
- DI(30 mins), logical reasoning, English paragraph given statement yes/no/cant say questions 5,6 rounds of video questions 2 hours test in iitk. It will take 4 hours.platform is bad

Thank You !!!!

Shortlist ?????

veritas technologies anywhere??

SAP LABS ?? URGENT ?? //IITk respond<- responded :)

5 basic questions from DBMS(MCQ) (5 minutes)

3 coding questions. Will be given only 10 minutes for each questions. Some code will already be given. The student is expected to modify the code to correct it.(10*3 minutes)

1 question from data-sciences. You will be asked to code the the 0 solution in python and to predict the outcome given the sample input. I think you can't use any python libraries. (10 minutes)

5 logical MCQ questions.(10 minutes)

10 CS MCQ questions (10 minutes)

SPRINKLR QUESTIONS -

IIT H (4th December)

The questions were pretty difficult .

1)

★ The Lost Constellation (125 Points)

Once there was a great mind called Socratotle. One fine day he was watching the night sky and all he could see was stars. He started forming constellations in his genius mind! He made a constellation out of "n" stars, but unconsciously he made it in such a way that there was only one simple path between any two stars. This means that there is only one way to reach from any star to any other star.

Now, Socratotle had two deciples, Aristotle and Socrates. They thought that the constellation made by Socratotle is a bit too much for normal people to remember and will be forgotten as time goes on. So they decided to document only "k" stars out of "n", and hence the legendary n-star constellation is now lost forever.

They decide to delegate this task to you, a programmer from the future (remember, those were mystical times!). Your job is to find out how many different k-star constellations can be made from the n-star constellation. Remember that you must satisfy the original condition of the n-star constellation which is there must be only one way from any star to any other star in the k-star constellation.

Two constellations are not same if and only if a star is in one and not in the other. Aristotle and Socrates don't want the actual constellations for now.

The n-star constellation is described by two lists, A and B both of length "n-1". This means stars A[i] and B[i] are connected.

Input:
array a[] of length n-1
array b[] of length n-1
k

Output:
no. of ways % 1000000007

Constraints:
2<=n<=50
1<=ai, bi<=n
1<=k<=n

The n-star constellation is described by two lists, A and B both of length "n-1". This means stars A[i] and B[i] are connected.

Input:
array a[] of length n-1
array b[] of length n-1
k

Output:
no. of ways % 1000000007

Constraints:
2<=n<=50
1<=ai, bi<=n
1<=k<=n

Example:

Input:
1 2 3
2 3 4
2

This returns 3 as there are 3 ways to make 2-star constellations.

Input:
1 1 1 1
2 3 4 5
3

This returns 6.

2) This was another very long question: (so I am paraphrasing)
You were basically given an array of positive integers which represented the points one can collect, you had a window k, each person can collect points at i and k+i+1. You had to return the maximum points that all the students can collect (there is no limit on the number of students). Note that if one student collects the point at i(by extension k+i+1), it cannot be collected again.

3)

Shortest path with Nitro Boosters (75 Points)

There are N cities, numbered from 0 to $N-1$. It is possible to travel directly between any two cities. Different pairs of cities may require different travel times. You are given the travel times as array of strings, say $dist$, with N elements each consisting of n characters. The character $dist[i][j]$ represents the time needed to travel between cities i and j in either direction, using a car.

The car is equipped with K nitro boosters. Using nitro booster makes you twice as fast as you normally are. Each time you travel (directly) from some city to some other city, you may take one of the nitro boosters. If you do, that travel will only take half time of what it normally would. You are not allowed to take more than one nitro booster at the same time.

Compute and return the smallest amount of time in which you can travel from **city 0** to **city 1**.

Notes

- The travel times given in $dist$ don't have to satisfy the triangle inequality.
- Your return value must have a relative or absolute error less than $1e-9$

Constraints

- $dist$ will contain between 2 and 50 elements, inclusive.
- Each string in $dist$ will contain exactly $|dist|$ characters.
- Each character in $dist$ will be between '0' and '9', inclusive.
- For any valid i and j : $dist[i][j] = dist[j][i]$.
- For any valid i : $dist[i][i] = '0'$.
- k will be between 0 and 50, inclusive.

Input Format:

First Line of the input contains 2 integers N (number of cities), K (number of nitros). N lines follow. Each line contains a string of length N , with characters in the range '0' - '9'.

Examples:

Sample 0:

Input:

3 1
094
904
440

Output:

4.5

Explanation:

According to $dist$, you need:

9 units of time to travel between cities 0 and 1
4 units of time to travel between cities 0 and 2
4 units of time to travel between cities 1 and 2

You have a single nitro booster. The optimal solution is to use the nitro booster and travel directly from city 0 to city 1. This trip will take $9/2 = 4.5$ units of time.

Sample 1:

Input:

3 2
094
904
440
Output: 4

Input:

3 2
094
904
440

Output: 4

Explanation:

The normal travel times are the same as in Example 0, but now you have two nitro booster. This changes the optimal solution. Now it is better to travel from 0 to 2 and then from 2 to 1. For each segment of your trip you will use one of the nitro boosters. Thus, each segment will only take $4/2 = 2$ units of time.

Sample 2:

Input:
3 50
094
904
440

Output: 4

Explanation:

You are not allowed to use more than one nitro booster at the same time. The optimal solution remains the same as in Example 1, only now you will still have 48 nitro boosters when you reach city 1.

4) This question had an obscure function whose value we had to calculate, the parameters of the function were such that any direct application would cross the integer limits... sorry cant remember any specifics.

I will simply this question for you as far as I remember.

You are given n,m,a,b,c as inputs. You need to calculate a function.

$f(i) = (\text{pow}(i,i) + A * \text{pow}(i,5) + B + C * (\text{something})) * f(i-1)$, $i \geq 2$

Given, $f(1) = 1$ and

$A = m * a;$

$B = A + A * (b + c)$

$C = A + B + A * (\text{Math.ceil}(\log(\text{base 10})(a + b + c)))$

You need to find $f(n) \% m$

$1 \leq n \leq 10^{18}$

$1 \leq m \leq 10^6$

$1 \leq a, b, c \leq 10^{12}$

Solution: So, the function basically boils down to $f(i) = \text{pow}(i,i) * f(i-1)$.

So, if($n \geq m$) just return 0;

Else, calculate till $f(n) \% m$ in which case $n \leq 10^6$. So, no TLE I suppose.

Sears....Anybody knows sears CTC breakup?

[Paper and pen test, 40 min] Are the below questions Sears' questions ?

10 The same for when 1000 horses. ans?? maximum horses can run in one track is 1 ??0

Answer for this question?????? Google - it is a standard puzzle. Google 25 horses are given. Please post solution for 100 horses.(Multiply by On 4 :p) Is ans - 27 (it's 26) for 100 horses?? No , the answer for 100 horses is 26??Mine also coming 26.

How to identify second and third?

How 26?? First group horses in groups of 5 and race them-20 races + winners of races in groups of 5- 4 races, winners of these 4 races to find the winner-1 race, for the other two same as the last race of 25 horse puzzle -1 race. Total-26 .. Wrong answer. What is the correct one?27

2. Is there any set of 19 integers such that sum of ≥ 2 elements can be written in the form of m^n where m and n are greater than 1. ans?? Is the question complete?yes

? : Is it any two or :: every two or more elements, like say $m=2, n=3$ then I could have 2,3,4,5,... Where $2^3=3+5$ It is right ?

3.10 black 10 white balls and 2 bags.a bag is selected and a ball is selected from that bag.u have to arrange these balls in 2 bags in such a way that probability of choosing white ball is maximised. ($1W,0B+9W,10B=14/19$ prob.)

I think no of bag was 12

We are providing questions that are more than enough for solution google them

4. We have three numbers such that the $\gcd(a, b, c) = 1$. And $\frac{1}{a} + \frac{1}{b} = \frac{1}{c}$. Then is $a+b$ a perfect square? State the pro

of either wa.approach??

Solution:

<http://math.stackexchange.com/questions/530915/if-1-a-1-b-1-c-where-a-b-c-are-positive-integers-with-no-common-fact>

5. In a village, the couple continue to have children until they have a boy. What will happen to the gender ratio of the village. ans? Always remain 1:1 **How?solve it using expectation or google it....you will find it DONT DELETE AH**

Solution:

6. Ans??inequality between AP and GP . Use derivative? $Y = x(628-x)$. $dy/dx=0$.
???. Ans : $(3^{208})^2$

Qes 8 : 283283....283 (15 times) remainder when divided by 999 ?
remainder= $(283 \times 15) \% 999 = 249$.

Solution: +

You have the number 1 to 999. And every time two numbers a, b selected and they are replaced by a single number $a+b+ab$, the process is continued till only a single number remains. What is that remaining number. we prove this by mathematical induction what is the answer for this one

Solution: <http://mathforum.org/library/drmath/view/76422.html>

Does someone remember other questions ??

Total kitne question aae the? 12in 40mins@iit bhu.....3 CS related questions came which were very easy

Cs related kya ques the? Code for LCA in BST.....find the number that occur odd number of times in an array where all other element occur even no. of times.....and one output question.

A dragon with 100 head you can cut 20,17,15 on cutting it will grow 11,2,24 respectively, dragon dies when all the heads are cut.can the dragon die or not.(iitg 2016)(Answer IMPossible to kill it.

I think it is not possible. Since any linear combination of -9,-15,+9 can never make 100 since it will be divisible by 3.

How many 36 digit no. not divisible by 100.(iitg 2016)(Answer - $9 * 99 * 10^{33}$)

I think the answer should be 2349×10^{33}

$n(p) = n^2 - 10n - 22$. $n(p)$ product of the digits .no. is an integer is there any such no.(iitg 2016)- ans 12[

What is the maximum product of some positive integers whose sum is 1000 ?(iitg2016)(Answer - 2^{500} (Wrong Answer). greedy Approach)Answer is $(2^2)^*(3^{32})$! Beat this bitches!

What is the least multiple of 9 with all even digits ?(iitg2016)(Answer - 288. Logically it must be 0 or rather -infinity.. Considering only positive numbers 288 will be the answer.)

174174...16 times divided by 999 what is the remainder(iitg 2016) (Answe r = 786)

A circle is divided in 6 sectors and 1,0,1,0,0,0 are written in counterclockwise sense.You can only increase neighbouring digits by 1.Can you equalize all the sectors?(iitg 2016)

One recursion question

$N + d(N) + d(d(N)) = 1000$. Find min N. $D(N) =$ sum of digits of a number.().

Similarly there were 6 other qstns and all have to be solved in 40 mins.

SYMANTEC TEST LINK - IIT Guwahati 20 Question were easy. Just check the corner cases and at least one is required for sure to get selected. -- IITG symantec

Has Edgeverve arrived to any college other than IIT BHU? Not in k

DE Shaw visiting any IITs? IIT BHU 12 Nov

IIT K: 12th Nov

Elastic run questions anyone?

When is codenation visiting other iits???

IIT M: 8th Nov.

IIT BHU: 13 Nov.

IIT Delhi: 8th Nov

IIT Roorkee: 8th Nov

DE Shaw Questions friends????????? patt????????? 2 coding, 20 MCQ(quant+cs//10 each)platform???? Hackerrank

Sandvine

Pen-paper test at IITB

3 sections- Apti, Technical(Communication networks, output of code), Coding(write code on paper)

Apti-25 MCQs- 30min

Technical-30MCQs-30min

Coding-3 Qs- 30min

Rakuten

IITB

1 coding question on codility.com. 50min

Find area of intersection of given 2 circles (coordinates and radius given)

Same at IITH

BlackRock any IIT?

IIT K - 40 quant 60 min- More probability, permutation and combinations questions

IIT D- 40 quant 60 min

Please share type/ pattern of Questions of BLACKROCK?? - aptitude based test, some basic quant and puzzle

Exam dates

IIT K 13th Nov

Amazon Plz update questions??? IIT K Amazon Ques??

Is coming to any IIT except BHU? IITk 6th Nov IITG ; IITR

Finmechanics visiting other IITs??

IITM:8th Nov

THE QUESTIONS IF YES.

CITI CORP GDM ??? ANY??IITK ??

Platform : amcat

Three sections;

Sec A : Quant (16 ques. In 16 min,)

Sec B. DI (10 ques in 20 min)

Sec C : Critical reasoning (22 ques in 30 min)

No coding ???!

Uber other IITS? @IITH,D,R,B?

CGPA FOR MEDIATEK ?

Qualcomm ?

Finmechanics? Test?

JP Morgan - Junior Analyst test?

HSBC (ASSOCIATE ANALYST)TEST??

On what date does EXL come for placements in your IIT? IITk Day1

EXL Test?

Test on cocubes 10 english 10 ana

Can you complete it ? ??????

Mathworks??

2 programming question each from c, C++ and Java. You have to choose ny 2 programming language.

Then either attempt python programming question or matlab MCQ questions.

Useful links:

<https://www.glassdoor.co.in/Interview/MathWorks-Interview-Questions-E17117.htm?countryRedirect=true>

Questions will be more or less very similar to the interview experience described in the link above.

Estee Advisors, IIT D, 21L/A, 70mins 7 questions

1. A,b,c three random variables where a[0,10] b[2,7] c[3,7]. Total 330 possible combinations. Write a code to assign these variables to integers from 1 to 330. Also write a code to decode
2. 3 door, 1 - heaven, 2 - 1day in hell and 3 - 2days in hell puzzle (search for 3 doors heaven puzzle in google)
3. 20 triangles with 60 non intersecting line segments, if 10 line segments are removed at random, how many complete triangles will be there
4. 3500 selected out of 175000 entries at random, what is the probability of getting selected if a sent 100 entries
5. In an array of size N, all integers are present in doubles, except one (x), write a code to find x?
6. A-b-c-d-e, delete c if u know c
7. Number of times dice has to be rolled to get 6 ten times before getting 5 eight times

Flipkart and IIT ??

IIT D, IIT K Amazon Ques??

See part2

HAS NOVI DIGITAL VISITED ANY IIT?

Anyone got GE Edison paper for electrical till date????

@iitbhu- 11 Nov

JP MORGAN(QUANT RESEARCH) **CTC & Breakup ??? Nobody knows the CTC**
????

IITB- Quant MCQ section(20 min, 8 questions), same in IITM, same in IIT k, same in IITK

1. If prob of getting train in 10min is 0.64 then prob of getting in 5min? (Ans : 0.4)
2. Prob of a^2+b^2 being divisible by 10, where a,b are integers (Ans : 0.18)
- 3.
4. Expected number of coin flips until you get 3 pairs of alternates(like either HTHTHT or THTHTH if I got it correct) (Ans : 84)- //Please explain// 64 or 63 . My coming 63.. Mine 84, MINE IS 94 (I'm considering that upto kth toss nothing goes wrong but the (k+1)th toss violates the sequence, where k goes from 1 to 5. ([see explanation here](#))
5. Code output(Modified Binary search)
6. A person moves north east by 2048 steps..then takes 90 degree clockwise rotation and moves half steps (1024)...repeats until he can't move integers steps. Coordinates of final resting position (if started at 0,0) (East is Positive x-axis, North is positive y axis) (Ans : 1740)(1946,818)
7. 15 notes of 3 denominations (5 per denomination). Expected number of different denominations you will get when you draw 5 notes randomly. **SOLUTION??** (Ans : $3(1 - (2/3)^5)$)
8. Expected no of turns to draw 2 queens without replacement in half a deck(only red left) -18 how its 18? I got 21.2

Subjective section (40min, 4 questions), IITB

1. Find subarray whose sum is equal to given sum
2. In a $m \times n$ cell, you start from top left and go to bottom right. You can go either rightward or downward at any step, by a single step. Each cell has some candies. Find path to collect maximum candies.
3. Show that there exist at least one such scenario s.t.
 $X_1^2 + X_2^2 + X_3^2 = X_4^2 + X_5^2 + X_6^2 \pmod{12}$ if X_1, X_2, \dots, X_6 are 6 integers chosen from 11 integers..
- 4.

Study the following graph carefully and answer the questions given below it:

The graph shows rose production in different states.

J.P.Morgan Test - Mozilla Firefox

https://www.educba.com/jpmorgan/myquestions.php

Time Available: 10:40

FINISH TEST >

Question Number : 4

a) Design an algorithm to find if an array contains a subarray (a subarray is set of adjacent elements from the original array arranged in the same order as in the original array) whose sum is equal to a given sum. An algorithm efficient in time and space will be awarded extra credit. Please mention the time and space complexity.(Use a programming language of choice)
b) Provided that it is possible to find if an array contains a subarray whose sum is equal to a given number in linear time, find if the array contains duplicate elements or not in linear time.

4:35 PM
11/5/2016

J.P.Morgan Test - Mozilla Firefox

https://www.educba.com/jpmorgan/myquestions.php

Time Available: 10:29

FINISH TEST >

Question Number : 2

4 servers W, X, Y, Z are continuously relaying a message. What are the number of ways in which the message can end up at the same server after 7 relays. W → X → W → Y → W → Z → Y → W is one way.

4:35 PM
11/5/2016

J.P.Morgan Test - Mozilla Firefox

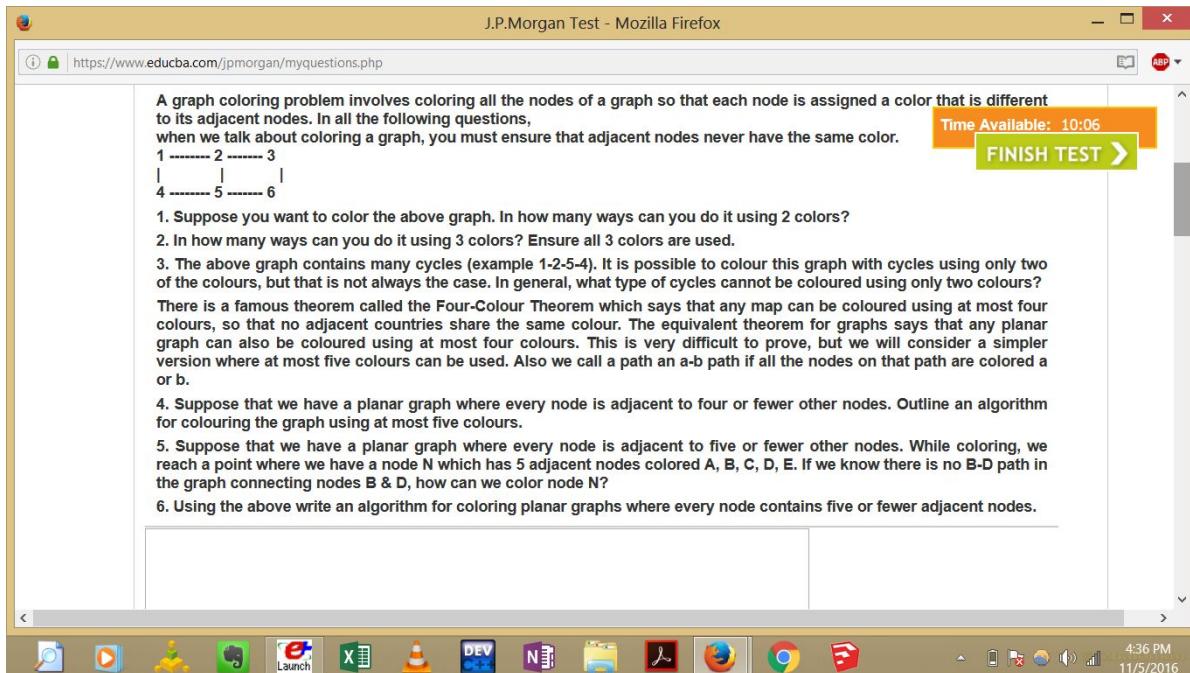
https://www.educba.com/jpmorgan/myquestions.php

A graph coloring problem involves coloring all the nodes of a graph so that each node is assigned a color that is different to its adjacent nodes. In all the following questions, when we talk about coloring a graph, you must ensure that adjacent nodes never have the same color.

Time Available: 10:06

FINISH TEST >

1. Suppose you want to color the above graph. In how many ways can you do it using 2 colors?
2. In how many ways can you do it using 3 colors? Ensure all 3 colors are used.
3. The above graph contains many cycles (example 1-2-5-4). It is possible to colour this graph with cycles using only two of the colours, but that is not always the case. In general, what type of cycles cannot be coloured using only two colours?
There is a famous theorem called the Four-Colour Theorem which says that any map can be coloured using at most four colours, so that no adjacent countries share the same colour. The equivalent theorem for graphs says that any planar graph can also be coloured using at most four colours. This is very difficult to prove, but we will consider a simpler version where at most five colours can be used. Also we call a path an a-b path if all the nodes on that path are colored a or b.
4. Suppose that we have a planar graph where every node is adjacent to four or fewer other nodes. Outline an algorithm for colouring the graph using at most five colours.
5. Suppose that we have a planar graph where every node is adjacent to five or fewer other nodes. While coloring, we reach a point where we have a node N which has 5 adjacent nodes colored A, B, C, D, E. If we know there is no B-D path in the graph connecting nodes B & D, how can we color node N?
6. Using the above write an algorithm for coloring planar graphs where every node contains five or fewer adjacent nodes.



88888

ZS Business Analyst Questions ??? (pack:8.08pa)

Total 60 qstns.

10-LR(coding decoding questions,a paragraph qstn)

10-Attention to details.

15-verbal(jumbled sentences,sentence correction)

10-quant

15-DI (easiest section)

Can you post questions??

In quant there was a question on compound interest on direct formula, one on milk water mixture(direct formula), one was on time distance(answer was 870 but i don't remember the question, lol, I like you man, please post a few more answers...ohk one was 4 :P), one was on PnC(very easy)

Vmock (Software/Data Science) ???? any one??

IITK

It is in open for 3 different profile.

Basic machine learning algorithm based questions are asked . (type - subjective)

Like - 1: what is feature scaling ,

2: which is efficient MAP or MLE

- 3: write some features of Kernel learning
- 4 :implement OR gate using Deep neural network
- 5: Where machine learning cannot be applied.
- 6: bayesian learning advantages

Some coding questions.

Did any of these comp
any visited any campus?

,JP Morgan, - 5th November(IITK) ,IITM as well, IITK as well, IITB as well
Axis Bank

EXL - 5th nov(IITK) please add questions

HSBC, (IITG) , post the questions for analyst profile didn't come yet

Citi Corp , IITBHU:11nov

Samsung Noida?? Anyone having idea?

Codenation?? IIT BHU- 13nov

American Express??

FRACTAL ANALYSIS: Questions IITD guys, please mention them here.

Please post Fractal Analysis questions..

Fractal Analytics IIT Bombay (23rd November)

4 questions in one hour on hackerrank (full screen mode)

Each question had different score

Scores distribution : 50, 75, 75, 100 in the order of questions mentioned below
respectively

1. Given 3 numbers left, right and k, find 2 numbers a and b such that $\text{left} \leq a < b$
 $\leq \text{right}$, $a \text{ xor } b$ is maximum and $a \text{ xor } b \leq k$ ($\text{left}, \text{right} \leq 3000$)
2. Given n people, with each person having $a[i]$ tickets each, they have to sell k
tickets. At any moment, if ith person can sell his ticket at price $a[i]$ (if he sells his
ticket, then he can sell next ticket with $a[i]-1$ cost). Find the total maximum
amount which they can get as a group
Constraints: $n < 100000$, $a[i] < 100000$, $k < \text{sum of all } a[i]'s$
3. Do not remember the exact question, but it boiled down to
<http://www.geeksforgeeks.org/find-number-of-islands/> with slight manipulations
needed

- Given a string, find total number of distinct substrings (length of string <= 100000)

TEXAS INSTRUMENTS Questions, IITK guys, please mention them here.

Test Links: (People, please post links as soon as you finish test, others will login and get the questions)

Is Nutanix visiting IIT G or any other IIT for international profile?? No not for International profile at IITG.

Please Share q

IITG,D,K please share questions of Nutanix.

BE TEST??

Please Share Opera Solutions(Analytics Specialist Profile) questions????

Qualcomm Questions Please!! For Software and hardware profile. From BITS students specially.

Nobody has written about IBM Research questions! Did they not visit any campus yet?

- In IITB, IBM took pen-paper test. Around 10 questions. Basic DP, linked list and some aptitude questions

SUBJECTIVE OR OBJECTIVE??

Please post some sample questions....

- **QUESTIONS????**
- **0Time limit? 2hrs@IITM**
- Same in IITD as well

- Same in IITM. Paper-pen. 10 questions. Easy. Find kth smallest in BST. Find two elements with largest multiplication value in array of integer
- s. Output of C program. Find subsequence of elements with largest sum. Find shaded area in the given figure. Probability of fruits picking. Given set of images with one animal per image, how to find number of distinct animal sets in the collection (Machine learning approach).
- **Can u tell the complete ML question? The question is not so clear. Also fruit picking question???????**

IIT K people update nutanix questions. -- Test is on Nov 1

FICO Analytic Scientist profile? Any IIT?IITG

3 sections:

- 1. Coding section : MCQ on output of function such as recursion, matrix modification, string manipulation, 2d to 1d matrix conversion(total 15 questions)**
- 2. Aptitude questions : 80% questions were from probability. These were hard questions such as :**
 - i. Two lines are drawn from top of square to bottom of square what is the probability they intersect.
 - ii. three ants are on the different vertex of equilateral triangle. These ants can walk any direction along triangle sides starting from their vertex position. What is the probability they won't cross each other?
 - iii. graph question : how many colours are needed to color vertices of graph with more than 4 vertices. Cond: no two adjacent vertices should have same colour R-R, G-G etc. and no vertex should have same colour adjacent vertices R-G-R, B-Y-B etc.
- 3. Subjective answers: This section will be evaluated only if you pass first two section.**
 - I. What steps will you take to form your career?**
 - II. If you want to develope cycle for blind people explain its requirement, architecture and functionalities.**

FICO Software development Anyone??IITG

Same as above. Exam was same for all profiles.

Had HSBC visited any campus yet? If yes please post the questions and the pattern of the test..!! **What is the package?for software-12 LPA.....for analyst-14 LPA ;**

Please post questions of analyst profile as well.

Yes, in iitm. 4 sections -verbal, apti, algorithm-(eg tree and no. of comparisons), java.0

@iitbhu-the test was of 110 minutes, verbal apti were medium to easy questions,

and if one knows java, questions were of moderate level.

Around 75 students were shortlisted out of 200 for coding round. The coding round

had 2 ques (from a pool of questions) to be solved in 30 mins. platform - cocubes.

Difficulty- very easy. Questions- can't remember exactly. Related to string, array etc.

Where there questions from multithreading, collections, interfaces in HSBC or only OOPs for JAVA SECTION ??

<http://www.geeksforgeeks.org/hsbc-interview-experience-for-sde-2/> exactly the same format

Was their negative marking in HSBC (for those whose programming language is c++) in order to know if one should go through java or leave the paper ?

@IITR there was no -ve marking in HSBC test, java was of moderate level, if you know OOP concepts even in c++ you can do the java questions, if you are not comfortable with java attempt that section at last.

Please someone tell about HSBC Analyst profile CPI cutoff ?? Branches opened ???? HSBC Not shortlisted any student from EC,CS and EE in IITR for coding round.

No CGPA cutoff. Open to all b

ranches @IITR.same@iitbhu

please share questions for HSBC Analyst()

Tesco @ iitd - problem 1 ...approach?? I guess its not greedy! It is
? YES

CREDIT SUISSE IIT k CTC & Breakup ??? ???

URGET : Was it a Pen Paper Test ??

--YES IT WAS A PEN and PAPER TEST

Some sadistic rascal removed thEe content, he sure won't get placement in CS

Pasting it again

Paper 1 for Model Risk management:

10 Questions.

EXL questions ???10 marks each

- Line L1 drawn with 60 data points $\{(X_i, Y_i)\}$. Later observed that y-coordinates of two points have been interchanged. Corrected and fit a new line L2. Would the lines L1 and L2 intersect? Justify. If yes, where do you think they would intersect?- **verify**
- Expected length of chord where 2 points are randomly chosen on a circle with equal probability to be chosen from $a^2 + 5b^2 + 4c^2 - 4bc - 4ac = 0$. Tell if a,b,c can be sides of triangle. (Ans: No) (**Someone please post the solution if they can**)
- 32 people are sitting in a round table such that the younger is at left except 1 and 32 case. You can ask 6 people about their age. Find the person with median age.
- Calvin and Hobbes are playing pokemon go, their phones detect pokemons within 1m range. Calvin and hobbes are 1 m apart. Calvin finds a pokemon, what is the probability hobbes finds the same pokemon.
- One question to check the validity of pdf (integrate and check if its 1)
- One question on finding sum and product of eigenvalues of 4×4 and 5×5 matrices (Trace and Det. of the matrices)
- One question to draw the graph shape of a given equation. It was $(x^2+x) + |(x^2-x)|/2$
- One question to solve integration. I don't clearly remember the equations but I guess they were (a) $y'' - y' - 2=0$ (b) $(x^2)y' - xy = y^2$
- any point - **It is $4r/\pi$**
- Question on brownian movement, stochastic walk ;

Paper 2 for MLRM

7 Questions 10 marks each. Hints were given at every step so no worries.

- Given $N(0,1)$ Prove it's kurtosis value is 3. Kurtosis = $E[(X-E[X])^4]$ was given
- <http://math.stackexchange.com/questions/28179/logic-question-ant-walking-a-cube> -> A question of this type. It was for a 2D hexagon with centre connected to all vertices. One starts travelling from centre. Number of steps to reach back to centre had to be found out. (Ans : 4)
- Give normal distributions X, Y and $S=aX+bY$. Find a, b such that variance(S) is minimum
- A correlation matrix was given out which $\text{corr}(2,3)=\text{corr}(3,2)$ were unknown. We were supposed to find the range of that correlation value
- Using taylor series, find the value of π
- What is a call option? Prove that call option price decreases as strike increases.

Country A says its currency (X_a) value is 10 times country B's (X_b). Country B also says the same. A child from country A borrows 1 unit of X_a from his mom, exchanges for 10 X_b . Then crosses the border to buy ice-cream worth 9 X_b . He then exchanges remaining 1 X_b for 10 X_a . Crosses border again to buy another ice-cream worth 9 X_a . Finally returns 1 X_a to his mother. Who paid for his snack?

Any help ????

FUZZY LOGIX??? IIT KANPUR GUYS...PLS HELP!!

EMC (ADD Date/Questions)any idea about the pattern??

IIT B??

IIT K??

IIT K??

IIT G 29th Oct: 1 hour test

50 questions

25:apti

25:technical:oops,os,dbms

U need to be very fast

In time management

Apti questions r time taking

In technical output question of c++

Page fault

Hashing

Sql

No negative marking

IIT R??

IIT M??

NEXT EDUCATION PATTERN (ANY IDEA)

How was the interview process ?? How many rounds ???

How many rounds must the chu managers take, before they hire a fresher?

The answer my friend is blowing in the wind, the answer is blowing in the wind .

Cisco in other iit

Any cg cut off? //7 in IITG, IITB

IITB:after 20 Nov.

IITD: 4th Nov

IITK: 25 Nov

IITR:

IITM:10th Nov

:?:

IITG: 28th Nov

IITH: not visiting

IITBHU:not specified yet

Amazon@IITK

Twenty MCQs and 2 coding questions

MCQs were mostly gate type ques on OS, DS and Algo

Coding:

1. Print Size of the maximum and minimum sized connected component in a graph.

(**Do you mean strongly connected components or components in a forest?????????**)

2.

3. <https://www.hackerrank.com/challenges/greedy-florist>

AMAZON@IITK

Similar to IITK

20 MCQ including aptitude and OS,DS concepts

Minimum number in 8 bit 2's complement representation? -128??

Best data structure for implementing least best fit?? Binary search tree?

One question related to TCP UDP i don't remember exactly

Time complexity of a given recursion function

Two coding questions

- Given number n and an array of non decreasing n integers representing the size of memory partitions. Given a file size , Get the memory partition size that best fits the given file.

Ex: n=8

array=2 2 5 6 9 12 13 15

File size=7

Ans=9;

- Enter numbers in a $n \times n$ square matrix A starting from 1 to $n \times n$ (n-square) in spiral order. Right => down => left => up. Now given an integer k print locations (i,j) such that $A[i][j] \% k = 0$.printing should be done in increasing order of $A[i][j]$ values

Similar question :

<http://www.spoj.com/problems/PRINTSPIRAL/>

Microsoft

Q. When is Microsoft test in other IITs ?

IITD: 21 oct

IITK: 24 oct.

IITG: 27 oct

IITR: 29 oct

IITB: 20 nov

IIT k: 2 Nov

IITBHU: 7 Nov

IITM: 13 Nov

Microsoft IITD (21 Oct 2016)

//was there any MCQ round before coding round?

//is this for research or software engineer post?????? Single test for both profile

Was stl allowed in the test? YES

Is python allowed? No

NO copy paste though

Platform: Hackerrank Fullscreen, Time: 75 min

3 Questions.

1. <http://www.geeksforgeeks.org/longest-zig-zag-subsequence/>
2. <http://www.geeksforgeeks.org/find-excel-column-name-given-number/>
3. <https://www.hackerrank.com/c3hallenges/matrix-rotation-algo>

Microsoft (Research Engineer Profile)IISc(23 oct 2016)

3 questions

1. [Find next smallest palindrome \(range 10^100\).](#)
2. Find number of triangles can be found from numbers given in array.
<http://www.geeksforgeeks.org/find-number-of-triangles-possible/>
Convert number into decimal form .(Recurrence decimal form).
Can someone explain this question or provide some sort of link ?? Could be one of these :
(<http://www.practice.geeksforgeeks.org/problem-page.php?pid=514> ,
<http://www.geeksforgeeks.org/find-recurring-sequence-fraction/>)

Microsoft IITK

Platform : Hackerrank , Time : 75 mins

1. Search element in a sorted matrix (both rows and columns are sorted)
2. Given a sequence of D
<http://www.geeksforgeeks.org/length-of-shortest-chain-to-reach-a-target-word/> and I (D for decreasing and I for increasing) generate the smallest number which satisfies the given sequence, ex ID -- ans 132, DD ans 321, DI ans 213. One constraint was all digits should be distinct.
Answer to input "ID" should be 132 right? --q
<https://www.interviewbit.com/problems/find-permutation/>

3. Given a matrix, starting point , destination and the positions of gas stations. Find the length of min path in which a car can reach destination with a fuel capacity of C. At every fuel station it can fill its tank to max. (**Any question**)
4. **link?) Can the fuel be filled at a gas station any number of times or only once i.e. on first visit? Any link to this type of question ??**

Microsoft IITG

Platform:Hackerrank, Time:-75 min

I1) ??

2) Minimum length palindromic partitioning

<http://www.geeksforgeeks.org/dynamic-programming-set-17-palindrome-partitioning/>

What is the Required time complexity of this question??O(n^3) passes? --NO

n^2 solution was expected

3) Basic question on sorting

There were n products given(1 to n) out of which some product are defective which are indicated by 0 or 1(0- defective). We have to arrange the defective products first based on their value(increasing order) and then non-defective product(increasing order). First line contains number of products(n). Next n lines contains value of products. The line then followed contain s (n) and next n line contains indicators for defective item(0-defective).

Eg

5 1 2 3 4 5

1

1

0

1

1

Output will be

3

1

2

4

5

Microsoft IITR (29/10/2016) microsoft

[3 coding questions, 75 minutes]

1. <http://www.geeksforgeeks.org/stock-buy-sell/>
2. Give kth lexicographically number in numbers from 1 to n.
Eg. If n = 20, k = 2, Numbers in lexicographical order are 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 2, 3, 4, 5, 6, 7, 8, 9. So answer will be 10.
Brute force solution passed 5 out of 6 test cases. (Convert all numbers [1,n], insert into a vector and sort, then output kth string).
Here's an **O((logn)^2) solution(all test case passed)** :
<https://github.com/nkotwar/Helper>
3. Given M intervals which are occupied / busy, find the free intervals with minimum interval length of k minutes. Intervals are given in following format sh sm eh em, (sh is startHour, sm is start minute, e for end, 24 hours format followed). Your output intervals should also be in the 24 hour same format as input. First output number of intervals followed by each interval on a new line.
<https://www.hackerrank.com/contests/amazon/challenges/meeting-schedules>

Microsoft IITk (02/11/2016)

Platform: HackerRank, Languages: C, C++, Java

[3 coding questions, 75 minutes]

1. given integer n, count number of 2s appearing in numbers from 0 to n

<http://www.geeksforgeeks.org/count-numbers-from-1-to-n-that-have-4-as-a-a-digit/>

2. find start of loop in circular linked list (it was actually single linked list code, no loop, only values repeated)
3. add 2 integers without using any arithmetic operator

<http://www.geeksforgeeks.org/add-two-numbers-without-using-arithmetic-operators/>

Microsoft IITBHU(7/11/2016)

Platform : Hackerrank, Languages: C, C++, Java

NO Copy PASTE ALLOWED even within the code editor

- 1) <http://www.geeksforgeeks.org/trapping-rain-water/>
- 2) <http://www.geeksforgeeks.org/minimum-time-required-so-that-all-oranges-become-rotten/>
- 3) <http://www.geeksforgeeks.org/collect-maximum-coins-before-hitting-a-dead-end/>

Microsoft IITM

For question 1,3 any idea what was that one test case which was not passing for anybody?

- 1)
- 2) Given an array of integers, (can have positive, negative, zero in unsorted order and may have duplicates) return an array without any duplicates in same order. Constraints- O(1) space, O(n log n) time. **Approach?**
- 3) Given input 'n', output a pyramid of height with incremental numbers. Eg: n=4, output: 1,2 3,4 5,6,7 8,9 10, (comma means a new line). Constraint- should be solved in $<O(n^2)$ time.
- 4) Given input 'n', consider 'a' is the largest 'n'-bit binary number possible. Return largest 'm' such that $m! \leq a$. Constraints- you cannot use '*' operator, Average case should be solved in $O(n^2)$ time and best case should be solved in $O(n \log n)$ time. **What was the constraint on n (<64?) NO**

Were the space and time complexities specified? YES

IIT B - 20th Nov

1. <http://www.geeksforgeeks.org/generate-unique-partitions-of-an-integer/>
2. <https://www.hackerrank.com/challenges/candies/>
- 3.

DE Shaw WORST COMPANY, THEY DO NOT TAKE ANYONE, THEY DESERVE TO BE BLACKLISTED

Q. When is De Shaw test in all IITS ?

iitbhu:12nov

litg: 11nov**please post questions**

IITG Experience(you can thank us later) -

Test will be conducted on Hackerrank. It will be a 90 minute test.

There will be three sections -

- 1. Coding - 2 coding questions, one was simple ad-hoc and another was 3dimensional DP similar to LCS problem.**
- 2. Technical - 10 technical questions based on networks/DBMS/operating systems/ing**
- 3. Aptitude - 10 aptitude questions**

You can only attempt the sections in this order. Once submitted you can't go back to previous section

Marking scheme-

Total marks = 100

Coding section was of 60 marks (20 + 40)

Technical was of 20 marks with +2 for correct and -0.25 for wrong

Aptitude was also of 20 marks with +2 and -0.25 .

Time for each section -

Coding - 50 minutes

Technical and Aptitude - 20 minutes each

DE Shaw IMPORTANT NOTE-

Time remaining in each section will be rolled over to the next section. So if you solve both the coding questions in 30 minutes, then your remaining 20 minutes will be added to the technical sections,same for aptitude section too.

Deshaw coding questions-

1. (40 marks) You are given three strings x,y and z. You have to find the length of the longest common subsequence.
2. (20 marks) You are given n,m,k. N denotes the number of clothes you have.m denotes the number of days . Each day you choose one of the clothes out of the clothes you have and send it for laundry for k days. That cloth will be available after k days. You have to find the total number of ways of choosing the clothes for all the m days.

IIT k:

1. Given two strings, sent and received. Output: 0 if both are same, -1 if there is a difference of more than 1 char, else return the position of leftmost char which has n deleted.
2. Flipping of 01 array each with some cost. Minimise the cost. DP

ORACLE

CTC- 22.5 LPA Platform??Was there Negative marking??Nope (IIT k, IITH)

Base Pay of Oracle anybody??? - 14.5

\$ 126,300 CTC for Oracle US profile(in IITB). CPI cutoff: 8.5

Is there Round 2 for oracle ? Any such information in any iit ?

Time was section wise or total??(section wise) Was there any CGPA cut-off for getting shortlisted for test? yes,7 in IITG.

What is the pattern of oracle exam ? Total duration? Platform??Was it totally objective? yes

In Coding Round, there were 2 Sections

- 1) Section 1 15 Minutes 10 Questions (question were based on tree and linked list)
- 2) Section 2 10 Minutes 7 Questions (First 3 Questions were based on radix sort, and next 4 on tree traversal...a very long was given and we have to tell the output)

In Computer Science Knowledge Round, there were 3 Sections (**What were the topics?**)

- 1) Section 1 6 Minutes 5 Questions
- 2) Section 2 6 Minutes 5 Questions
- 3) Section 3 5 Minutes 5 Questions

There were 5 sections in Software Engg Section

1. Math Reasoning 12 Minutes 10 Questions
2. Data Analysis 10 Minutes 8 Questions
3. Persistence Attention to Details 3 Minutes 6 Questions (Some name and numbers were written in column; you have to tell which is correct column as there is minor changes in each options)
4. Programming Ability 13 Minutes 10 Questions
5. Logical Thinking 7 Minutes 6 Questions

Give some example of Programming ability questions, please? Random for all

Some questions that I remember:

If DENZIL is encrypted with LEADER, then ELDEST?

Which of the following can be used in quicksort? List, stack, queue, set

A Ship is 8100 km from starting point. A jet is flying 10 times faster than ship. When they will meet?

Questions are related to avl tree construction(who code of avl tree given ,find number of rotations on inserting a sequence ,etc) ,bfs,dfs code(find which code is correct,etc) ,avl tree code,code is given find the output related to recursion for trees,depth of trees.

Aptitude section is time taking, prepare well for it.

Flowchart questions - A game is given and flowchart is given for output. Some blocks in flowchart are left empty, based on the game or problem find the missing blocks, etc.

Exact same paper at IIT Bombay. Have a look at AVL tree. Memorise it thoroughly.

They will give you the code but understanding that code will take most of your time. The code is standard one. Questions were normal insertions, recursion, depth.

And revise radix sort. They asked the basics of radix sort. One question was about radix number representation.

Learn all kinds of list - LinkedList, ArrayList, SortedList, / Direct questions on their performance.

All the best !

Simple reasoning questions are there.

A few questions were repeated also like the one of mirror image of binary tree. One important type of ques. Was where u were given a flowchart to solve a problem eg.(the sum of squares of all numbers from 1 to n). There were approx. 5 blank boxes which u had to fill in. There were 5 ques consecutively on the same flowchart. So solve it completely before moving onto the next ques. (once u've solved it, simply marking the answers will not take much time).

IITB - 21st NOV

IITR - 25th Oct who deleted the description here

RES

Friends please be careful before deleting something

Can someone provide the description???

IITK - dates not out

IITH - IIT k3rd NOV

- Same three sections. Main problem will be shortage of time. No negative marking so just answer and move on if you can't solve it in ~40 seconds. **QUESTIONS??**

You all just gave the structure and some description..not expected this from you :

VMWare

Q. When is VMWare test scheduled in all IITS ?

IITM - 1st Nov

IITK - 19 oct

IIT K - 9TH Nov

IITB - 22 Nov

IITBHU:10 Nov

IITR : 23 Nov

IITG- 8 Nov **QUESTIONS????**

VMWare IITK (Same in IITB)

Platform: hirepro

3 MCQ sections, timer for each section is separate, so u cannot switch back & forth

Aptitude : 10 questions (15 min)

Quant and DI questions

Technical : 20 questions (35 min) schetcd

ts, algo and ds(tell the o/p questions), ip addressing etc...

Optional section(C++ or JAVA): 7 questions (10 min)

Mostly on inheritance & oops

What is ts and schetcd ?

The technical questions were on what all concepts? os

Shortlist - >6.0

Was there 12th and 10th std criteria, please update

Requirements: X-70%, XII- 70%

VMWARE IITM

Same pattern,

Section1: apti(medium-hard)

Section2(Tech): algo(page faults, resource allocation, max-heap,memory-access time, use of reverse polish notation,benefits of SDN, mainly OS, code o/p)

Section3(C++): namespace, virtual functions,OOPs concepts

VMWare IITk

Pattern was same, HirePro, CG cutoff 6.5

Section 1 : Apti, Quant : 10 Questions, 15 Mins : Einstein Puzzle, DI Paragraph, Normal work, mixture, average questions. Too lengthy. Solve the paragraphs at the end.

Section 2 : Technical: 23 Questions, 35 Mins: Code I/O, , DNS basics, Postfix - Infix Notation, Pagefaults, Scheduling,

Section 3 :OOP(Java/C++): 7 Questions, 15 Mins: (I chose Java) : Program output, Polymorphism, Array.split : Easy oop concepts

VMWare IITG

Same pattern as above.

Appending in Section2:

Questions on round trip time, jacobson algorithm etc.

PayPal

Q. When is paypal test in all IITs?

Q. What is the CPI cutoff for paypal ? = 7.0(IITR, IITH, IITBHU, IITk, IITM),No cutoff(IITB)

Q. Was STL allowed in the coding test?-yes

IITH: 17oct

IITM-28 Oct

IITR - 13 Oct

IITB - 27 Oct

IITBHU-23Oct

IITk- 27Oct

Different Slots mean- Time slots were different or there were different sets???**Ans: Both**

PayPal IIT Roorkee: Test Date 13th October

Test Platform: Hackerrank

Duration of test: 90 min

15 MCQ questions: these included Aptitude, logical reasoning, code(output of a segment of code), c/c++ based questions, php, pl/sql, One question on Huffman Coding, one sql query output.

1 coding Question:(1st & 2nd slot)

<https://www.careercup.com/question?id=5840928073842688>

1 coding Question:(3rd slot)

<https://www.careercup.com/question?id=5721734273564672>

(3rd slot dudes were lucky I guess)1

Suggestions: MCQ questions were easy try completing them as fast as you can(20-25 min) and give more time to coding part.there is no limit of time to any section all 16 questions are given all together.

Paypal IITH 17th October 2016

Pattern same as IITR.

MCQ question pattern also same as IITR although no php question was asked.

Coding question: (Only One Question ??) Yes

<https://www.hackerrank.com/contests/dakshcoderun/challenges/cutting-bit-string>

The question can be solved via DP. Firstly, any binary string can be converted to long long using `stoll(string, nullptr, 2)`. Then, it can be checked if it is a power of 5 or not. The solution lies in decomposing into subproblems of smaller size. Then, recreating using -
 $DP[i][j] = \min(DP[i][j], DP[i][k] + DP[k+1][j])$

where k goes from i to j.

3Here, i,j,k are indexes of binary string.

Also, before this you have to check whether $DP[i][j]$ can be solved independently or not?
I.e. it is a power of 5 or not. If it is then $DP[i][j] = 1$;

You need to check for leading zeroes.

Answer is $DP[0][n-1]$.

Answer link <http://ideone.com/z3sTcm>

Can we open other tabs to check syntax or anything ??? no :(:

Same question asked in IITM.

Paypal, IIT BHU

16 MCQs - Apti, Java, Algo etc and 1 coding question

Coding Slot-1:

Given a matrix filled with 0,1 or, -1. Each cell represents a path, cell with -1 means blockage.

Once you pass through a cell filled with 1 it becomes 0, but it can still be traversed. Start traversing from (0,0) to (n-1,n-1) and go back to (0,0) and find the value of max points you can collect. ([How do we do this ????????????](#))

Same got asked in IIT k 27 oct

$dp[i][j] = \max(dp[i-1][j] , dp[i][j-1]) + \text{matrix}[i][j]$ //when matrix[i][j] = 1 or 0

Brute force ([Passes 5/12](#)) : First check if the bottom last element is -1 or not . If it is -1 return 0. Else simply count the no of 1 in the matrix and print it.

This algo passes 5 out of 12 test cases. So if you are not able to come up with an algo.

Try this !!

Approach 2:

DP to find most profitable path, backtrack to set all visited 1s to zero, again call same DP function: test cases passed: 7/12 (passed 7 or 8 depending on the direction you took to backtrack to fill taken positions with 0 value. On going left always 8 passed, on going up 7.)

Limits???

Coding slot 2 - Kth lexicographical permutation of string comprising of only letters 'H' and 'V'. In this, number of letters of 'H' and 'V' were specified for the string
(This is the simplified version of the question)

Any hints or link to similar question?

<https://www.interviewbit.com/problems/kth-permutation-sequence/> - same question came for Microsoft in IIIT-H

Generate all the strings in lexicographic order and print the Kth string? **No this would give TLE**

Can't we just use `std::next_permutation()`? It was giving TLE in last few test cases

Possible solution: Decide each time whether it should be H or V.. how to decide..?

Simple.. Check no. of ways remaining H's and V's can be arranged. Start with H, If no. of ways to arrange is less than K, use V (and update k as k - no. of ways) else use H and recurse

Paypal, IITB

1 coding question, 15 MCQ, very easy

IIT Bombay 2016

09m : 45s to test end

15/16 Attempted

Sandeep Rai

Input Format:
The first line of the input contains an integer n .
Each of the next n lines starts with an integer c_i , followed by c_i integers that represent the contents of the i^{th} cell of Array A .
 n is no more than 300.
It is guaranteed that there exists at least one way to fill array B with numbers to satisfy the conditions.

Output Format:
 n space-separated numbers representing $B[1], B[2], \dots, B[n]$.

Sample Input 0:

10
4 3 7 5 10
5 1 5 10 6 4
4 7 5 9 4
0
2 9 4
2 9 4
2 5 4
6 1 3 7 10 6 4
1 4
1 9

Sample Output 0:

2 1 3 7 5 2 4 1 6 3

Explanation 0:

- $B[2]$ and $B[8] = 1$ because none of the cells of A contain the numbers 2 or 8, so no cells of B need to be less than $B[2]$ or $B[8]$.
- $B[1]$ and $B[6] = 2$ because none of the cells of A other than $A[2]$ and $A[8]$ contain the numbers 1 or 6, so no only $B[2]$ and $B[8]$ need to be less than $B[1]$ or $B[6]$.

#dfs

Paypal IIT Madras

Same questions as IITH was asked.

Cutting the string in such a way that each partition is a power of 5. String is in the form of binary representation of a number.

There were 16 aptitude questions.. All the questions are available on this [link](#).

Paypal Discussion

Cutoff for PayPal?

Ppl SL'ed, be careful with Paypal, they've blown up their CTC almost twice their base salary. Look for reviews on glassdoor. They will show CTC almost twice but will get almost 1/3rd of it.

Any idea what is the job location for Paypal?

The HR told me that it might be in Chennai or Bangalore, but my seniors told me that mostly we will be posted in chennai only..

Mckinsey and company ??IITK guys add QUESTIONS.

When is Mckinsey Test at All IITs ?

IITK 24th OCT.

Opera Solutions ??

Test date for opera for all IITs?

IITK : 25th OCT

IITB: 24th OCT **Q. time ?9pm to 1030pm > Please Add question till 24th midnight.**

Thanks

IITD Please add questions

Opera Solutions IIT Bombay(25th Oct)

Platform: Offline (Pen and Paper)

Profile?

MCQ's were asked. 3 sections (10 General Aptitude (1 mark each 0.25 negative), 15 Programming(2 marks each 0.5 negative), 10 RDBMS/SQL(1 mark each 0.25 negative))

Questions were relatively easy. Based on SQL, C/C++ output, RDMS, Networks, General Aptitude.

In DBMS they asked about serializability also. One ques on port address .

They asked one question on threading (OS) and

no of tag bits in 4 way set associative cache of size 4096 bytes with line size 128 byte and address size 16 bits.

|

Are they allowing Python ??

GEInfosys at IIT Roorkee 24th September

How to solve this “N subject” question ????? anyone who has solved, kindly provide solution

Fuzzy Logix at IIT Roorkee- October 15,2016

The online test consisted of 4 sections and was 1.5 hrs long, 4-5 sets of questions were there:

- Quant- 15 questions - 19 minutes
- SQL(Basic SQL MCQ)- 10 questions-14 minutes
- CS (MCQs on Bitwise operators(majorly))- 10 questions-17 minutes
- Coding- 2 questions- 40 minutes, following were the questions in my set:
 - Reverse all the words of a string-
<http://www.geeksforgeeks.org/reverse-words-in-a-given-string/>
 - <http://www.geeksforgeeks.org/longest-common-substring/>
- Other Coding Questions (from different sets) were standard DP(Coin Change, Fibonacci , etc) & Trees(given Pre& In order ,find Postorder, LCA)

Qualcomm dates??

IITB: IITK: IITk: 1 Nov IITD:12 Nov IITR: 23oct IITM: 27th Oct IITG: 31 oct

IITBHU:8Nov IITH: 13 Nov

IITR please share pattern and questions of Qualcomm if pos sible?

Qualcomm at IIT Roorkee- October 23,2016

platform??

All were MCQs, no coding questions.

Section 1 : Aptitude : 20 Questions (30 min), Standard aptitude, Einstein Puzzle etc

Section 2 : Programming : 20 Questions (30 min), Given a code snippet and a blank space choose from the options which completes the program. Sometimes output of the program. C or C++ ? What type of questions were asked ??? OOPS ???

Section 3 : CS(choice 1) 20 Questions (30 min). Choice to choose between 3 (CS,

Electronics & Comm), I choose CS Questions on DS (Insert, Delete and Pre order traversal of Heap), Computer Arch (Page faults), Digital Logic Design (Number of OR gates required in 4-bit Full Adder), Linux (which API used to manipulate time : time_create(), time_get(), alarm(), pause()), OS (Optimal Page Replacement Algorithm, Process Scheduling) etc.

Alert ://not available at IITG Electronics(choice 2) 20 Questions (30 min) Few questions on FSM(determine function from truth table etc.), mos device physics(calculate the difference between fermi energy level and intermediate energy level given Nc, Nv,T etc.), AD

C & DAC(R-2R ladder circuit), 555 timer(calculate the duty cycle given resistor and capacitor values), and others are normal (easy) digital questions.

MNNIT Adobe questions?

Adobe Questions?

There were 3 programming questions .

Platform :HackerRank.

1.

IIT BHU GOLDMAN SACHS (intern) ?

Has Fuzzy logix came to any college? (IIT BHU- NO, IITK ???)

IIT BHU ppl can answer this..!!

IIT K also

EdgeVerve@ IIT BHU 27/08/2016

3 coding ques- 2hrs 30 mins

Platform- hackerrank

Difficulty- Easy to Moderate

1. An encryption logic is given as follows- Given a string consisting of alphabets (a-z) and underscores(_). The characters [a-i] are considered in first group, [j-r] in second group and [s-z, underscore] in third group. The three groups are to be rotated by integer values k1, k2, k3.

For eg- string= "a_quick_brown", k1=2, k2=3, k3=5. Here, group 1 has {a,i,c,b} at positions {1,5,6,9}. Since, k1=2, on rotation, the elements on these positions become {c,b,a,i}. Similarly the other group elements are rotated as well. Find the final encrypted string for a given string and rotation values k1, k2, k3.

Input- First line has 3 space separated integer values- k1, k2, k3- the rotation value of group 1, group 2 and group 3.

Second line consists of a string to be encrypted.

Output- Encrypted string

Sample Input- 2 2 3

"a_quick_brown"

Sample Output - cwr_baouinq_k (is this output correct ?? , i am getting
"cuo_banwiqk_r")

2. Log of Submission

Given a log of submissions of a programming contest by a particular user. Find the total score and time taken.

Each entry of the log has 3 space separated values- integer 'n' (denoting the time of submission from the start of the test), Uppercase character [A-Z] (denoting the question no), string= "right" or "wrong" denoting whether the ans of submission is right or wrong.

Score is given as the no of total correct submissions. Time is defined as the sum of the submission time of all the correctly submitted entries. For every successfully submitted questions, there is a penalty time of 20 mins for every instance of incorrect submission for that particular question. No penalty for incorrect submissions of the questions not submitted correctly till the end. All the submissions of a particular question after it has been submitted for the first time are ignored.

The values of n in the log of submission are arranged in non-decreasing order.

Input- Several lines with 3 space separated values- integer 'n' (denoting the time of submission from the start of the test), Uppercase character [A-Z] (denoting the question no), string= "right" or "wrong" denoting whether the answer of submission is right or wrong.

[Note: No of lines is not given]

Output- Score followed by time

Sample Input-

0 G wrong

100 A right

150 W wrong-

156 Q wrong

190 G right

Sample Output- 2 310

Explanation- score=2(for A and G)

Time= (100(for A) + 190(for G)) + 20 (for wrong submission of G at n=0))

W,Q are ignored as they don't have correct submission till end.

3. Minimum sum of two numbers formed from digits of an array [Slightly Modified]

Given an array of digits (values are from 0 to 9), find the minimum possible sum of two numbers formed from digits of the array. All digits of given array must be used to form the two numbers.

The summands at any step must not have any leading zeros. It is guaranteed that the input will have at least 2 non-zero digits.

1<size of array<=14

Input: [6, 8, 4, 5, 2, 3]

Output: 604

The minimum sum is formed by numbers

358 and 246

Societe Generale

@ IIT BHU 11/9/2016: CTC-17.5LPA

Is there any CPI cutoff and is it open for all branches??

@IITBHU: CPI>6.0, Open for: cse,ece,eee,mnc

same pattern was followed in IIT Roorkee too 9/10/2016

Platform: HirePro

All the questions were MCQ with NO negative marking. The test was of 70 minutes and consisted only of four sections:

- 1) Aptitude(20 ques)
- 2) English(10 ques): Mostly find an error in sentence and complete a sentence
- 3) Software(15 ques): Questions from topics DBMS, Software Engineering, scalearc, Testing
- 4) Language(5 ques): Output questions in Java or C#. One can choose to give test in any one language

I am not sure about the number of questions, mentioned them as much as I can remember

Societe Generale@IITM, Sr. Software Engineer

Is there any CPI cutoff and is it open for all branches??

@IITBHU: CPI>6.0, Open for: cse,ece,eee,mnc

Same pattern as IIT BHU. **Is it open for MTECH, please comment??**

No

Aptitude, Technical, Verbal, Language (C#, Java)

30mins, 30mins, 20 mins, 30 mins. Each section specific time. No spill over.

3 digit number ABC, how many numbers such that B > A, B > C, A!=0? Ans 240.

Questions on Work, Time Distance.

Lot of questions on Testing. Unit Testing. Role of Product Manager. What does System Analyst do? What does Data Flow Diagram represent?

Had to choose between C# or Java. Predict Output of programs. Recursion.

Program given, which of the following is not used? Polymorphism, Inheritance,... So revise OOP concepts well.

AMAZON

(Internship) IIT(ISM) DHN 16/9/16 Platform : Hackerrank

20 MCQ based on quants,OS,sorting. (CAN SOMEBODY POST FEW MCQS ALSO???)

For Quants try indiabix. Amazon had 5-6 common questions from there.

CAN ANYBODY UPDATE THE TOPIC OF QUANT ???

For sorting check geeksquiz.

2 Questions for coding:

1. Remove nodes with odd value in linked list

2. Return the most frequent string in reverse lexicographical order from an array of strings. ---Please explain with a test case or something

Amazon @ IITG 22nd October

20 MCQs + 2 Coding questions Time 90 minutes, Platform Hackerearth
MCQs on general aptitude,algorithms,time complexity.

Coding Question 1: You are given an array of N integers and K. You need to print the sum of integers in window of size K, starting it from [0,k-1] and sliding the window by one element.

Coding question 2: Magic strings, A string can consist only of characters{a,e,i,o,u} with the condition that ;

- Condition 1: 'a' can only be followed by 'e'
- Condition 2: 'e' can only be followed by "i" or 'o'
- Condition 3:'i' can only be followed by 'a','e','o',or 'u'
- Condition 4: 'o' can only be followed by 'i' or 'u'
- Condition 5: 'u' can only be followed by 'a'

Input : N length of string????, Output : number of such strings possible.

Will generating all possible strings work??

Is the answer 5^{n-1} ?

My approach: make a dp of $5 \times n$. $Dp[i][j]$ will denote j length strings ending with character $v[i]$; $v = \{a,e,i,o,u\}$. Eg: $Dp['a'][j] = Dp['i'][j-1] + Dp['u'][j-1]$; Is this correct? yes.:)

<http://www.geeksforgeeks.org/count-number-binary-strings-without-consecutive-1s/>
(similar approach)

Nope. Solve using dp :) $O(n)$

We can solve this in $O(5^n)$. Just write a recursive function with parameters i(position) and last characters. Based on last character, add the possibilities and solve for the sub problem. $O(5^n)$.

Amazon(SDE 1) IITH 8th October 2016

Round 1:

7 code debugging questions followed by 24 apti questions. 21 minutes for debugging section and 35 minutes for apti section.

Debugging questions are super easy, like try finding missing i++ in the loop or bubble sort in ascending order is given do it in descending order and so on.

Apti questions too are easy, like given a:b::c:? Kind of simple logic.

Round 2:

Round 2 was simulation test and coding round. You need to clear round 1 to give round 2.

What is the cutoff score to clear Round1? **Don't know**

https://www.reddit.com/r/cscareerquestions/comments/3cln67/about_amazon_sde_software_development_engineer/

The above link contains explanation about simulation test. **Don't know how they used to evaluate the students based on it.**

There were 3 coding questions next. 70 mins for 1st two and 30 mins separately for the 3rd. Questions were chosen from a pool and mostly some of them got one or two questions same among the 3. You were supposed to code only the logic function and not worry about the main function and accepting input, etc.

Platform: AMCAT

- 1) Can you please clarify the question? All are standard questions, what is there to clarify ? Most online solutions are finding longest palindromic substring in single string. This one asks for two strings?
- 2) Given diagonally opposite points of two rectangles, find whether they overlap or not. **k same** ? No nothing
- 3) <http://www.geeksforgeeks.org/clone-linked-list-next-arbit-pointer-set-2>

MICROSOFT IDC (Internship) ISM DHN 25/9/16 Platform Hackerrank

Duration : 75 min, 3 Coding questions

1. <http://www.geeksforgeeks.org/level-order-traversal-in-spiral-form/>
2. <http://www.geeksforgeeks.org/find-all-combinations-that-adds-up-to-given-number-2/>
3. Given a binary magical string (description of magical string was given..google it.), you can swap magical substrings in the string to get the largest binary magical string. Swaps can be done infinitely but only between consecutive magical substrings.

jivoxDirecti (Platform Engineer) IITD Platform: Codechef (90 minutes)

1. A simple question on 0-1 Knapsack. You were given n chocolates, each having cost c_i and calories p_i , you have a total budget of K rupees, find the max amount of calories you can get with the budget you have, only one chocolate of each kind is available.
2. A string can contain only a, b or c. There cannot be 2 consecutive same character. First and last character cannot be same. Now given a string with 'a', 'b', 'c' or '?'. We need to find the string replacing '?' that satisfy the above conditions. For multiple answer display lexicographically smallest string. For no answer possible display "Not Possible".
Greedy?
3. There are n items with you. Out of those exactly 1 item is defective. And we are also given a set of comparisons and their results as well. A comparison look like this:- take k_1 items on each side and record the

result as one of ‘>’ , ‘<’ or ‘=’. Now given this much info, can you tell which of the item is defective. If not then output “Not Possible”

Directl 01-Oct-16 IITk

Same questions were asked in Directi at IITB, IIT BHU, IIt Guwahati ,IIT MADRAS, IITH and IITK on 1-Oct-16 (Placement)

These 3 questions were to be done in 2 hours.

1. You are given two number-strings A and B. A number-string is a string that contains only digits ['0'-'9'].

The task is to make both the strings equal. The only operation that you are allowed to do is to delete a character (i.e. digit) from any of the strings (A or B).

The cost of an operation of deleting a digit D is D units.

Now, you have to make both the number-strings equal in minimum cost.

Constraints:

$1 \leq T \leq 10$

$1 \leq \text{length}(A), \text{length}(B) \leq 1000$

Input Format:

First line of each testfile contains T, the number of test cases.

In each test case, first line contains number-string A and second line contains number-string B.

Output Format:

For each test case, output only line containing the minimum cost to make both number-strings equal.

Example:

Input:

3

7135

135

816337597
816393504
816337897
816393804

Output:

7
36
34

Please confirm output of above test case 2 and 3 ... it is showing 36 and 34 but i think it should be 34 and 36. In test case 2, delete 3,7,5,7 from string 1 and 3,5,0,4 from string 2 , now the cost of deletion is 34 not 36 as shown above.

2. In a country, there are N cities and M bidirectional roads. Some of the roads of the country are broken and need repairing. The king of the country wants a good transportation system, so he wants that all the cities of the country must be connected i.e. there must be at least one path to reach a city from any other city.

The king is also low on budget, so he wants to repair the roads in such a way that the cities of the country must be connected and the cost of repairing is as minimal as possible.

You have to find the minimum cost of repairing the roads such that the cities become connected.

Input Format:

First line of each test case contains two integers N and M denoting the no. of cities and no. of bidirectional roads. Each of next M lines contains the description of a road in following format:

U V 0
OR
U V 1 X

First two integers U and V denote the cities that are getting directly connected by this road. If third integer is 0, it means the road is OK and needs no repairing. If the third integer is 1, it means the road needs repairing and the cost of repairing that road is

denoted by a fourth integer X.

Output Format:

For each test case, output a single integer denoting the minimum cost of repairing in order to make the cities connected.

Note:

2. There is at most one road between any two distinct cities.
1. The input always guarantees that there is at least a way to make all the cities of country connected.
3. There is no road from a city to itself.

Constraints:

$1 \leq N \leq 10000$

$1 \leq M \leq 100000$

$1 \leq U, V \leq N$

$1 \leq X \leq 1000$

Examples:

Input:

4 6

1 2 0

1 3 1 4

1 4 1 1

2 3 1 2

2 4 1 5

3 4 1 3

Output:

3

3. You have a grid of size $N \times M$. Rows of the grid are numbered from 1 to N from top to bottom and columns of the grid are numbered from 1 to M from left to right. So, top-left corner is indexed as $(1,1)$ and bottom-right corner is indexed as (N,M) .

Cost of visiting a cell at index (i,j) is denoted by $C[i][j]$. Cost of changing the direction of

your facing at index (i,j) is denoted by $P[i][j]$.

You have to start from cell $(1,1)$ and reach to cell (N,M) with minimum cost. At cell $(1,1)$, you can either face towards 'Right' or face towards 'Down'. At any point of time, you can either face 'Right' or face 'Down'.

There are 2-types of moves allowed:

1. Move one cell towards the facing direction i.e. if you are facing 'Right', you can move one cell 'Right' or if you are facing 'Down', you can move one cell 'Down'. The cost of visiting cell (i,j) will be $C[i][j]$.
2. Change the direction of facing i.e. if you are facing 'Right', you can now face 'Down' or if you are facing 'Down', you can now face 'Right'. The cost of changing the facing direction at cell (i,j) will be $P[i][j]$.

Find the minimum cost to reach (N,M) after starting from $(1,1)$.

Constraints:

- $1 \leq T \leq 3$
- $1 \leq N, M \leq 1000$
- $1 \leq C[i][j], P[i][j] \leq 1000$

Input Format:

First line of each testfile contains T , the number of test cases.

In each test case, First line contains two integers N and M denoting the dimensions of the grid.

Next N lines contains M integers each denoting the cost matrix C .

Next N lines contains M integers each denoting the cost matrix P .

Output Format:

For each test case, output a single line containing the minimum cost of reaching (N,M) from $(1,1)$.

Example:

Input:

```
2
2 2
1 2
3 4
```

5 6
7 8
2 2
1 2
3 4
5 6
1 8

Output:

13
9

DirectI 01-Oct-16 IITB

Same questions as in IITk(Other IIT's be prepared in case it is a typing and debugging test)

DIRECTI (Internship) IIT(ISM) DHN 14/9/16 Platform : Codechef

1. Leaf maximum to leaf sum
2. <https://leetcode.com/problems/word-search/>
3. Can't recollect

Huawei Technologies IITD (Package: 16 LPA) platform: Cocubes

Open for btech?? No

CGPA??0

Section 1: 15 questions 30 min

All are MCQ on OS, data structure, algorithm, networking. Codes are given, and need to find its output.

Section 2: Coding questions 2 (60 min)

1. Find if the given two binary tree are same or not
2. A matrix is given with entries 0,1. We have to make modification in the same matrix such that for every 1 in original matrix we need to make all entries in its row and column to 1 p

Eg. input

0 0 0

0 0 1

Output:

0 0 1

1 1 1

It should be done in place. New matrix should not be created.

Huawei Technologies, IITM (Package: 15 LPA) platform: Cocubes

Open for btech?? no

CGPA??

Section 1: 15 questions 30 min

All are MCQ on OS, data structure, algorithm, C++/Java. Codes are given, and need to find its output.

Section 2: Coding questions 2 (60 min)

1. <http://www.geeksforgeeks.org/find-k-closest-elements-given-value/>

2. In a Linked List after every m elements delete n elements.

Example: 1-2-3-4-5-6,

m = 2, n = 2

Huawei Technologies, IITR (Package: 15 LPA) platform: Cocubes

Open for btech??

CGPA??

@IITG - NOT OPEN FOR B.TECH

Section 1: 15 questions 30 min

All are MCQ on OS, CO, data structure, algorithm, C++. Codes are given, and need to find its output.

Section 2: Coding questions 2 (60 min)

3. <http://www.geeksforgeeks.org/transform-one-string-to-another-using-minimum-number-of-given-operation/>

4. LCA in BST.

Di Samsung visit for developer profile in any campus? If so what is the test pattern??

-> same as R&D, their platform and all that

Does anyone have solution for this problem.....? Reply plz

SAMSUNG R&D (IIT Delhi)- Same for SRI- Noida @IIT BHU

Mr. Kim has to deliver refrigerators to N customers. From the office, he is going to visit all the customers and then return to his home. Each location of the office, his home, and the customers is given in the form of integer coordinates (x, y) ($0 \leq x \leq 100, 0 \leq y \leq 100$). The distance between two arbitrary locations (x_1, y_1) and (x_2, y_2) is computed by $|x_1 - x_2| + |y_1 - y_2|$, where $|x|$ denotes the absolute value of x ; for instance, $|3| = |-3| = 3$. The locations of the office, his home, and the customers are all distinct. You should plan an optimal way to visit all the N customers and return to his among all the possibilities.

You are given the locations of the office, Mr. Kim's home, and the customers; the number of the customers is in the range of 5 to 10. Write a program that, starting at the office, finds a (the) shortest path visiting all the customers and returning to his home. Your program only have to report the distance of a (the) shortest path.

How to solve this problem? Greedy won't work i guess? I think simple brute force can work over here as the $10!$ (the number of possibilities) is $\sim 10^6$. The distances can be preprocessed.

SAMSUNG R&D (Internship) IIT (ISM) DHN 7/9/16 Platform: Cocubes

1. Kth largest element in a BST.
 2. Sum of primes in a range.
 3. Unique triplets that form a given product.
- Samsung R&D IITM SRI- Bombay or SRI- Delhi??

$$f(n) = a*n + b*n * \text{floor}(\log n) + c*n^3$$

Input: a,b,c

Output : value of positive integer n for which $f(n)$ equals k for given a,b,c

0 if no such value of n satisfies

Approach?? Limits on input? //First find the upper bound of n for given k. And then apply binary search with lower bound equal to 1.

What if there are multiple solution? A, b, c are necessarily positive or not?

Please provide at least one test case?

It probably has a unique solution. $f(n)$ is an increasing function.

INTERNSHIP OR FULL TIME?

ONLY ONE QUESTION ?

Samsung R&D IITG

Same as IITM

$$f(n) = a*n + b*n * \text{floor}(\log n) + c*n^3$$

Input: a,b,c,k ($0 \leq a,b,c \leq 100$) $k \leq 2^{56}$

Output : value of positive integer n for which $f(n)$ equals k for given a,b,c
0 if no such value of n satisfies

Samsung R&D (SRI-B) IITH and IITR

platform?? Their own software. Sucks bigtime

Other ques?? No of ques?? Only one question in 3hrs. Only ONE question, and you can't use any library functions like stack or queue except input/output (and malloc if u are coding in c)

Java allowed libraries: util.scanner (and system.in,system.out)

Finding cycles in a Directed graph

Time: 3hrs

No MCQ's

Directed graph or undirected???? **Directed graph is given**

Input: number of vertex number of edge. Then in next line m pair of number representing edges.

Is the question to find number of cycles? Find if there is any cycle and if there is cycle then print cycle in ascending order of vertex number, involve in cycle

What if there are multiple cycle? Do we need to print only one? Yes anyone will do

What is criteria for shortlist do they consider no of pass as criteria or time or all those who passed are selected ? any idea pass all test cases to get shortlisted

What are the profiles for SRI-NOIDA and SRI-D? Is it not R&D?

Mr. K has a mania for rock-climbing.

Mr. K who completed several rock-climbing courses in the past now wants to go for a course which is known to be tough and hard.

Since he obtained the map of the tough rock-climbing course in advance, he wants to prepare himself to successfully complete the course.

N is the height and M is the width of the rock. What '-' in the map means is that there's space to place foot into that corresponding spot.

When he is climbing and '-' exists sequentially on the same height, he can freely move.

But if '-' is more than one space apart, moving towards the horizontal direction is impossible due to safety reasons.

From the current location, if, although the height is different, '-' exists right in the level above or below,

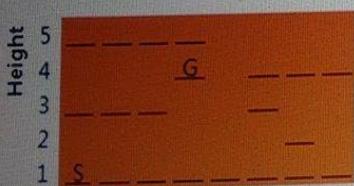
he can safely move up or down by using his equipment and physical strength.

Here, depending on how high/low he moves towards the upper or lower direction at one time,
the level of difficulty of rock-climbing gets determined.

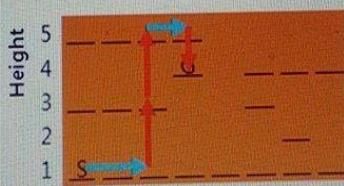
For instance, suppose a rock map such as below is given. (Empty space means there's no space to place foot).

The starting point of climbing is always the very left end point (height 1) on the ground and is expressed as S .

The goal point (or final point) is expressed as G .



[Fig. 1-1]



[Fig. 1-2]

In this case, since the maximum height of moving from the starting point to reach the goal point
by either moving up or down is 2 at one time, the level of difficulty of this rock is 2.

IIT BHU SRI-D qu

estions?

1 Rock-Climbing

Try Count 1	Remain Count 9	More View ▾
Submission Time	Solution	Result
21:44:22	Code	Fail

Time : C/C++/Java within 3 seconds for maximum 50 test cases
maximum 256MB is available for heap, global, and static combined (Note that maximum 1MB is available for stack)
10 times
Criteria : The number of correct test cases
will be given for the language you are using (C/C++, Java).
sample code to learn how to handle the input for your code and to acquaint the matters that require attention of the language you are using...
for convenience, so you can freely modify or erase the content.
language, if you use printf() function for your output, you must call
0); to get partial points when your solution gets time out.
about calling setbuf() function is included in the default code)

nia for rock-climbing.
pleted several rock-climbing courses in the past now wants to go for a course which is known to be tough and hard.
ed the map of the tough rock-climbing course in advance, he wants to prepare himself to successfully complete the course.
and M is the width of the rock. What '-' in the map means is that there's space to place foot into that corresponding spot.

[Fig. 1-1]

[Fig. 1-2]

Sunil Kumar (sunil_jnvt)

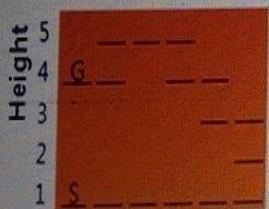
In this case, since the maximum height of moving from the starting point to reach the goal point by either moving up or down is 2 at one time, the level of difficulty of this rock is 2.

If there are rocks as shown in [Fig. 2-1] and Mr. K takes the course as shown in [Fig. 2-2], the level of difficulty to reach the goal point by going up one time is 3.

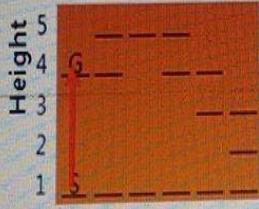
But if he takes the course as shown in [Fig. 2-3], the difficulty level becomes 1.

Note that NOT the total distance of movements is important, but that the level of difficulty is determined by the maximum value of one of the vertical distances made at one time.

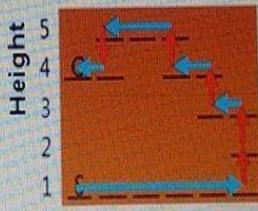
The difficulty level of the rock is determined by the path that has the lowest difficulty level from the starting to the goal point. Therefore, the level of difficulty of the rock in [Fig. 2-1] is 1.



[Fig. 2-1]



[Fig. 2-2]



[Fig. 2-3]

Given the map of the climbing course, the starting and goal point, write a program that computes the level of difficulty of the rock.

[Additional Description]

[Constraints]

1. N, M —the height, the width of the rock in the map, respectively, is each greater than or equal to 1 and less than or equal to 50.
($1 \leq N \leq 50, 1 \leq M \leq 50$)
2. Height 1 means the ground, meaning foot can be placed anywhere.
3. The input is always given in a manner so that the goal point can always be reached.
4. The height of the goal point is never on the ground, meaning not given as height 1.

[Input]

The first line of the input contains a single integer T —the number of total test cases.

From the next line on, each test case is given. The first line of each test case contains two integers N, M —the height, width of the rock, respectively.

On the next N lines, the rock map is given. Each line consists of M numbers.

"1" denotes there's space to place foot and "0" means there's no space to place foot.

The starting point is expressed as "2" and is always the very left point on the ground of height 1.

The goal point is expressed as "3".

On the starting and final point foot can always be placed.

Note that the higher part of the rock is given first in the input.

[Output]

Print "#T" for Test Case T and print the level of difficulty of the rock that is given in the corresponding test case.

(T stands for the test case number and starts with 1).

[Input Example]

```
5
// Test Case 1: N=5, M=8
```

[Output]

Print "#T" for Test Case T and print the level of difficulty of the rock that is given in the corresponding test case.
(T stands for the test case number and starts with 1).

[Input Example]

```
5
5 8          // Test Case 1: N=5, M=8
1 1 1 1 0 0 0 0 // Identical with [Fig. 1-1]
0 0 0 3 0 1 1 1
1 1 1 0 0 1 0 0
0 0 0 0 0 0 1 0
2 1 1 1 1 1 1 1
5 6          // Test Case 2: N=5, M=6
0 1 1 1 0 0 // Identical with [Fig. 2-1]
3 1 0 1 1 0
0 0 0 0 1 1
0 0 0 0 0 1
2 1 1 1 1 1
9 13         // Test Case 3: N=9, M=13
0 1 1 1 1 1 1 1 1 1 1 1 1
1 1 0 0 0 0 0 0 0 0 0 0 1 1
0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0
1 1 0 0 0 0 0 0 0 0 0 0 1 3
0 0 0 0 0 0 0 0 0 0 0 0 0 0
1 1 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0
2 1 1 1 1 1 1 1 1 1 1 1 1
...           // for remaining test cases, refer to "sample_input.txt".
```

[Correct Answer to the Input Example]

```
#1 2
#2 1
#3 3
#4 5
#5 10
```

1 Question : Application of Dijkstra ← Please explain Solution Anyone??

Samsung R&D Bangalore IITB

Time: 3 hours

1 Question in their shitty SWC software in VS, windows :/

No STLs allowed.

Question: given a connected graph with V vertices and E edges, color them with white and black such that no 2 neighbours have the same color. Print number of nodes with black color and their index (or white color and their index)

Time limit: 1 sec for C/C++ and 2 sec for java; 10 test cases

Constraints : $2 < V \leq 1000$, No constraint on number of edges, can be as big as $V*(V-1)/2$

DFS / BFS while toggling color

Samsung R&D Bangalore IITK

Approach please !? doesn't seem greedy

Greedy Will Work

Please provide the solution !!!

On a riverbank there are N slots for fishing and 3 gates.

For example 10 slots

Slots → 1 2 3 4 5 6 7 8 9 10

Gates at slot no-> 3 6 8

Fisherman at

Gate1 - 5

Gate2 - 2

Gate3 - 2

There are some fisherman at each gate and sum of fisherman is less than equal to total slots.

Cost of fisherman to reach from a gate to any slot is how many slot he is passed plus 1

For example if a fisherman enter from gate 1 and settle at slot no 2

Then cost is → (3-2) + 1

At a time only one gate is opened and if a gate is open then all of the fisherman at that gate will go inside one by one and will find best slot

So we have to find order in which gate is opened and best possible arrangement to minimize the cost.

Did anyone solve this?

Can someone give a proper example or some test case ?

JUNIPER IITK 5oct 2016 platform??

Time -1.30 hrs

15 aptitude - medium to hard level time consuming type (+2marks, -1 negative marking)

20 technical mcq - c/c++ (Mostly on Dynamic memory allocation, Static storage) some os/organisation (medium to hard) (+2marks, -1 negative marking)([more details please](#))

3 Coding question (very -easy)

1. next_permutation() (Lexicographically next) - 50 marks ([so just using std::next_permutation\(\) was allowed ???](#))
[We were allowed to use stl](#)
2. Decimal equivalent of binary linked list - 25 marks
3. Merge two sorted array - 50 marks

2

[^] Same questions were asked in IITB (Juniper: 26th oct)

Q.CGPA cutoff for juniper networks? No cutoff. Exam was allowed even for people who didn't apply. They said, resume submission can be sorted out later, give the test. (This is for IITM) Same criteria for IITK :)

Juniper@IITM 28th Oct

Time- 90 mins

\|

The same paper as in IITK.

Allowed to use STL.

Aptitude question topics: Time & Work, PnC, Prob,

Those dirty questions like A has two sons, B,C. B, C again have son/daughter. This one is accountant. Someone else is musician, bla bla. Then following it 3 questions were given. Identify who was accountant, E is whose daughter, ...

Technical Question topics: Big/Little Endian, 2's complement,

ADOBE, IITM, 8th October

Time: 1.30 hrs.

3 coding questions, hackerrank, fullscreen mode (exiting fullscreen will be logged out), implementing function only.

- Given is an array with values only 1, 2, 3 or 4. You can switch any particular value from among these values (1, 2, 3, 4). You need to find the minimum number of switches such that no 2 consecutive values in new array are same.

Example: 4, 1 1 1 1 Ans: 2. Ex: 6, 2 2 2 3 3 3 Ans: 2.

How to solve this.? Is this DP? Yeah DP solves it easily

Can someone say this is correct or wrong? :

[In one pass replace all which are X X X with X Y X , in second pass replace consecutive ZZ with Z Y]No need of DP

- You are a musician who plays different songs at different volumes. You have a particular difference that needs to be present for new song, but you don't care if it is more or less. You are given initial volume l, array of volume changes where arr[i] is volume change required after i-th song, max_vol h (min vol always 0), array size n. You need to find the max possible volume for the last song. But if at any point change is not possible, return -1.

Format: n, arr[n], l, h.

Ex: 3, 1 1 1, 0, 5.

Ans: 3.

Ex: 4, 9 1 5 4, 8, 15.

Ans: -1.

Ex: 3, 5 3 7, 5, 10.

Ans: 10.

Approaches ???

Backtracking is one possible approach that comes to mind.

Maintain a map which stores all possible volumes at any given iteration and iterate through each array value

Anybody ,please tell the efficient approach of this problem.

Input Constraints??? What is constraint on n?

Input explanation :

- Yes, first number = size of array,
- then next 'n' numbers of array.

- Then 'l' means initial volume
- Then 'h' means max volume.

Eg. 3, 1 1 1, 0, 5 means n = 3, arr = {1,1,1}, l = 0, h = 5,

Output explanation: initially you play music at vol 0, then for first arr ele. Arr[0] inc. by 1,

Arr[1] inc. by 1, arr[2] inc by 1 total = 3, answer !!

3. You are a string conscious guy. You categorise strings into 3 types: good, bad, mixed. If a string has 3 consecutive vowels or 5 consecutive consonants or both, it is bad. Else it is good. If a string has '?', that can be replaced with any character. Thus, string '?aa' can be bad if '?' is vowel or good if consonant. Thus, it is mixed.

Implement function which takes string s as input and returns good, bad or mixed.

Is there any approach better than backtracking? Are there any similar questions on any online judge??

SPOILER ALERT

How about this ?

GOOD and BAD are easy to implement,

Problem is to label mixed or good

Take a window of size 3 and 5 and maintain the count of vowels and consonants in this windows

You can then infer is its good, or mixed from this window

Adobe@IITK ([question to add kr do ??](#))

3 coding questions, platform : hackerrank

Adobe@IITD, 13th October

1. Given two strings A and B, find whether they have a common substring of length 3.

2. N computers connected by m bidirectional wires . Let I be the latency of each wire.
Find minimum time in which message can reach from source to destination.

Input :

N, M , II

Connection between each computer in following M lines.Followed by source and destination.

(Simple implementation of BFS) Will BFS work? Shouldn't it be Dijkstra??

All edges are of same cost so BFS will also give correct result.

3.N towers whose height can vary from 1 to h_i . Each tower has a distance d_i between them. Find the minimum length of wire required to connect the top of all towers irrespective of their height.

Input:

3 (no of towers)

3 3 3 (Height)

2 2 (Distance between towers)

Solution please !

Adobe@IITR, 21st Oct

- 3 coding questions in 90 mins
1. Given a string containing only '+' and '-', find the length of the longest substring containing only '+'. "SIMilar to KADANE"
 2. Given a word list and a sentence determine the least cost of generating the sentence from the words given in the list. A valid sentence is a combination of 1 or more words without any spaces and can contain any permutation of the words.
Eg if list contain "abc" then the sentence can contain "abc", "cab", "bac", etc. The cost is defined as the number of places where the word in the sentence and the corresponding word in the list differ from each other. Eg if list has abc and sentence contains a substring "cab" then the cost = 3.

Assumptions : You can use the same word multiple times and any transformation each time you use it.

Assumed Constraints : $1 < |s| < 5000$ [Passed all test cases].

Solution please !! EASY DP !! Is it word-break

problem??(<http://www.geeksforgeeks.org/dynamic-programming-set-32-word-break-problem/>)

3. Problem : There are n people numbered 1 to n. Some people are enemy, such pairs are given. You can form a group from range X to Y (from person numbered X to person numbered Y, all included) if and only if there is no pair (i,j) between X and Y such that (i,j) is enemy. Find how many total groups you can form.

Constraints : $1 \leq N, M \leq 10^6$.

Approach : DP (store for each person till how far he can from the group).

$dp[i] = \min(dp[i+1], next_enemy(i))$

next enemy is the first enemy of i after index i. [Can be found in $O(n)$ time overall - assign all $next[i]$ to $n+1$, now process each pair of enemy (i,j) if $j > i$ update $next[i] = \min(next[i], j)$ else update $next[j] = \min(next[j], i)$]

Final answer : After calculating dp array, do summation of $(dp[i] - i)$ for $i = 1$ to N .

ADDOBE, IITk, 21st October

- 3 coding questions in 90 mins

1) N students are standing in a line each having marks M_i , if two adjacent students have the same marks, teacher removes both of them from the line. Find the number of students remained in the line, if this operation is repeated.e.g. [1 1 1 1 4] ans: 1, [1 2 2 4 5] ans: 3

<http://www.geeksforgeeks.org/recursively-remove-adjacent-duplicates-given-string/>

2) A is lazy and B is crazy. A is having telephonic conversation and B decided to write down all the words spoken by a . He constructed a string out of the words. Your task is to find a substring of length 5 such that it has n repeated maximum number of times in the actual string. If multiple answers exists, output lexicographically smallest substring among the possible answers. E.g. heisagoodboy - ans:agood, Aaaaabbbbbaababab - ans:ababa

Can we create hashmap of all substrings of length 5 .

e g: for string abcdef , first abcde then remove a , append f , insert in hashmap . Hashmap will contain count for every substring .

3) There are 2 strings S1 and S2. Find two subsequences of S1 and S2, SS1 and SS2, such that $S=SS1+SS2$ is a palindrome of maximum possible length. Output the length only.

E.g. s1=a, s2=aa, ans=3

s1=ban, s2=ana, ans=5

s1=a, s2=b, ans=1

(Concatenate s1 and s2 and apply standard DP on concatenated string?)

ADOBE, IITG, 23rd October

1. Strings are given in snake case or camel case. Convert to the other format (if snake case is given convert to camel case and vice versa).
2. A vector of strings was given and we had to output a shortest string X which satisfied the following conditions:
 - a. All strings in the vector are substrings of X
 - b. Let the strings of vector be a₁, a₂, a₃..., a_n in this order then the starting index of substring corresponding to a₁ in X should be \geq starting index of substring corresponding to a₂.

E.g. vector = [x,y,x]

Answer: xyx

Vector = [abcdef,ab,bc]

Answer: abcdef (doesnt satisfy 2nd constraint?)[answer should be bcabcabcdef](YES!! I Agree)

Actually, Constraint 2 is given wrong in the question.

Starting indexes of a₁, a₂, a₃..., a_n (components of dictionary) should satisfy i₁ \leq i₂ \leq ... \leq i_n in the string X. Output the smallest such X.

So for input [abcdef,ab,bc,de,ef] answer would be (abcdef) as indexes are 0 \leq 0 \leq 1 \leq 3 \leq 4.

3. There are n persons and you have to kill all of them. Your gun reduces their health by 1 per shot. You can use guns of the persons you have killed. Each gun acts differently for each person (it reduces different amount of health for each). Find minimum number of shots required to kill all.

Input:

First line: n (number of people)

Second line: n numbers corresponding to health of n persons

Next n lines: ith line has n integers corresponding to the amount of health gun of ith person will reduce of all n persons.

(ANY Approach?)

ADOBE, IITB, 26th October

3 coding questions (hackerrank, no fullscreen shit)

1. Given some cookies (chocolate(1) and dry nuts(0)) in an order. Flip a range (change 0 to 1 and vice versa) or do not flip. so that there are maximum number of chocolates.
 - a. E.g {1,0,1,1} ans: 4 (flip[1,1])
 - b. {0,0} ans: 2 (flip[0,1])
 - c. {1,0,0,1,1} ans: 5 (flip[1,2])
2. Given n logs of radius $r_1 \dots r_n$. A guy wants to cut all n logs such that he can give wood of equal volume to m persons. Find the maximum volume of a piece of wood each person can get. Each person can get only a single piece. Height is 1 units.
3. There's a round table with n dwarfs (0 - n-1) sitting around it. Each have an initial strength of a_i and need to reach a final strength of b_i in order to free gandalf who is at the center. An operations is defined as taking 1 strength from a dwarf and adding it to a adjacent dwarf and the cost is the distance b/w them i.e 1. Note that it's a round table so 0th and n-1th dwarfs can do this operation too. Find the minimum cost.

Burning Glass Technologies, IITM (4th October 2016) -- 9 LPA

Time - 1.30 hrs

Psychometry test - 30 pictures shown, each for 6 sec. Had to write whatever comes to your mind. Then 1 Picture was shown on which we had to write story for 10 min.

Five design question:

were given, out of which we had to attempt two questions.

I answered below question. Each question had to be answered in (10 mins).

1. Amazon robotic delivery considering multiple geographies
2. Matrimonial website design.

40 Aptitude questions. (20 mins)

c/c++ - 10, Quants+Technical CS - 20, Machine Learning - 10

Securifi Embedded systems, IITM (14 LPA)

8 coding questions, about 10 technical aptitude questions, 3 hours

Magical Binary Strings

We define the following:

- A binary string is a string consisting only of 0's and/or 1's. For example, 01011, 1111, and 00 are all binary strings.
- The prefix of a string is any substring of the string that includes the beginning of the string. For example, the prefixes of 11010 are 1, 11, 110, 1101, and 11010.

We consider a non-empty binary string to be magical if the following two conditions are true:

1. The number of 0's is equal to the number of 1's.
2. For every prefix of the binary string, the number of 1's should not be less than the number of 0's.

For example, 11010 is not magical because it doesn't have an equal number of 0's and 1's, but 110100 is magical because it satisfies both of the above conditions.

A magical string can contain multiple magical substrings. If two consecutive substrings are magical, then we can swap the substrings as long as the resulting string is still a magical string. Given a magical binary string, str, perform zero or more swap operations on its consecutive magical substrings such that the resulting string is as lexicographically large as possible. Two substrings are considered to be consecutive if the last character of the first substring occurs exactly one index before the first character of the second substring.

Complete the largestMagical function in the editor below. It has 1 parameter: a string, str. It must return a string denoting the lexicographically largest possible magical string that can be formed by performing zero or more swap operations on consecutive magical substrings of str.

Input Format

Locked stub code in the editor reads a single binary string, str, from stdin and passes it to the function.

Constraints

- It is guaranteed that str is a binary string of 1's and 0's only.
- $1 \leq \text{length}(\text{str}) \leq 50$
- It is guaranteed that str is a magical string.

Output Format

The function must return a string denoting the lexicographically largest magical string that can be formed from str. This is printed to stdout by locked stub code in the editor.

Sample Input 0

11011000

Sample Output 0

11100100-

Explanation 0

Given the magical string str = 11011000, we can choose two consecutive magical substrings, 1100 and 10, to swap such that the resultant string, str' = 11100100, is the lexicographically largest possible magical string possible. Thus, we return the value of str', which is 11100100, as our answer.

Sample Input 1

1100

Sample Output 1

1100

Explanation 1

The only magical substring of str is 1100. So none of the operations can be applied on the string.

Sample Input 2

1101001100

Sample Output 2

1101001100

Explanation 2

The only consecutive magical substrings of str are 110100 and 1100 (note that 100 is not a magical substring because it contains more zeroes than ones); if we were to swap them, it would result in a lexicographically smaller string. Thus, str is already the lexicographically largest magical string that can be formed and we return 1101001100 as our answer.

Ashley Loves Numbers

Ashley loves Numbers—but only the ones without repeating digits. For example, she loves 12 but hates 11. Given two integers, n and m, Ashley wants to find the count, c, of numbers she will love that are in the inclusive range between n and m.

Complete the countNumbers function in your editor. It has 1 parameter: a 2D array of integers, arr, containing q rows of n and m values. For each row i in arr (where $0 \leq i < q$), the function must print the count (c_i) of integers having no repeated digits in the inclusive range between n_i and m_i .

Input Format

The locked stub code in your editor reads the following input from stdin and passes it to your function:

The first line contains an integer, q , denoting the number of rows in arr.

The second line contains an integer, 2 , denoting the number of columns in arr.

Each line i of the q subsequent lines (where $0 \leq i < q$) contains 2 space-separated integers describing the respective values of n_i and m_i for row i in arr.

Constraints

- $1 \leq q \leq 105$
- $1 \leq n \leq m \leq 106$

Output Format

For each row i in arr, your function must print the count, c_i , of numbers Ashley loves in the inclusive range between n_i and m_i on a new line.

Sample Input 1

The following argument is passed to your function: arr = [[1, 20], [9, 19]]

Sample Output 1

19

10

Explanation 1

Row 0 = [1, 20]

The set of qualifying numbers in the inclusive range between $n_0 = 1$ and $m_0 = 20$ is $\{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 19, 20\}$. This gives us $c_0 = 19$, so we print 19 on a new line.

Row 1: [9, 19]

The set of qualifying numbers in the inclusive range between $n_1 = 9$ and $m_1 = 19$ is $\{9, 10, 12, 13, 14, 15, 16, 17, 18, 19\}$. This gives us $c_1 = 10$, so we print 10 on a new line.

Sample Input 2

The following argument is passed to your function: arr = [[7, 8], [52, 80], [57, 64], [74, 78]]

Sample Output 2

2
26
8
4

Explanation 2

Row 0 = [7, 8]

The set of qualifying numbers in the inclusive range between $n_0 = 7$ and $m_0 = 8$ is {7, 8}. This gives us $c_0 = 2$, so we print 2 on a new line.

Row 1 = [52, 80]

The set of qualifying numbers in the inclusive range between $n_1 = 52$ and $m_1 = 80$ is {52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 78, 79, 80}. This gives us $c_1 = 26$, so we print 26 on a new line.

Row 2 = [57, 64]

The set of qualifying numbers in the inclusive range between $n_2 = 57$ and $m_2 = 64$ is {57, 58, 59, 60, 61, 62, 63, 64}. This gives us $c_2 = 8$, so we print 8 on a new line.

Row 3 = [74, 78]

The set of qualifying numbers in the inclusive range between $n_3 = 74$ and $m_3 = 78$ is {74, 75, 76, 78}. This gives us $c_3 = 4$, so we print 4 on a new line.

Diamond Mine

Diamond Mine is your new favorite game. Its map is represented as an $n \times n$ matrix, and the value of each cell corresponds to some property of the map:

- A value ≥ 0 represents a path.
- A value of 1 represents a diamond in a path that can be picked up by the player.
- A value of -1 represents a wall (path obstruction).

The basic rules for playing Diamond Mine are as follows:

- The player starts at $(0, 0)$ and reaches $(n-1, n-1)$, by moving right (\rightarrow) or down (\downarrow) through valid path cells.
- After reaching $(n-1, n-1)$, the player must travel back to $(0, 0)$ by moving left (\leftarrow) or up (\uparrow) through valid path cells.
- When passing through a path cell containing a diamond, the diamond is picked up. Once picked up, the cell becomes an empty path cell (meaning you cannot pick up the same diamond twice).
- If there is no valid path between $(0, 0)$ and $(n-1, n-1)$, then no diamonds can be collected.
- A player wins the game by collecting the maximum number of diamonds possible when following the above rules.

Complete the `collect_max` function in your editor. It has 1 parameter: a 2D array of integers, `mat`, describing the game map. It must return an integer denoting the maximum number of diamonds you can collect in the given Diamond Mine game map.

Input Format

The locked stub code in your editor reads the following input from `stdin` and passes it to your function:

The first line contains an integer, n , denoting the number of rows in `mat`.

The second line contains an integer, n , denoting the number of columns in `mat`.

Each line i of the n subsequent lines (where $0 \leq i < n$) contains n space-separated integers describing the respective elements of row i in mat .

Constraints

- $1 \leq n \leq 100$
- $-1 \leq \text{mat}_{i,j} \leq 1$

Output Format

Your function must return an integer denoting the maximum number of diamonds you can collect in the given map. This is printed to stdout by the locked stub code in your editor.

Sample Input 0

The following argument is passed to your function: $\text{mat} = \{\{0, 1, -1\}, \{1, 0, -1\}, \{1, 1, 1\}\}$

Sample Output 0

5

Sample Input 1

The following argument is passed to your function: $\text{mat} = \{\{0, 1, 1\}, \{1, 0, 1\}, \{1, 1, 1\}\}$

Sample Output 1

7

Sample Input 2

The following argument is passed to your function: $\text{mat} = \{\{0, 1, 1\}, \{1, 0, -1\}, \{1, 1, -1\}\}$

Sample Output 2

0

Explanation

Sample Case 0:

You can collect a maximum of 5 diamonds by taking the following path: $(0, 0) \Rightarrow (0, 1) \Rightarrow (1, 1) \Rightarrow (2, 1) \Rightarrow (2, 2) \Rightarrow (2, 1) \Rightarrow (2, 0) \Rightarrow (1, 0) \Rightarrow (0, 0)$

Balanced Parentheses

<https://www.hackerrank.com/challenges/balanced-brackets>

Plane Region Problem

How many distinct regions can be delineated on a white sheet of paper by drawing N straight lines?

Input Format

The first line has an integer T. T lines follow. Each line contains a separate test case with N (number of lines to draw.)

Output Format

Output the number of regions corresponding to each test case in each line.

For answers $\geq 10^9$, output only the last 9 digits of the final answer. (i.e. take modulo 10⁹.)

Constraints:

$T \leq 10,000$

$N \leq 108$

Sample Input:

3

3

2

Sample Output:

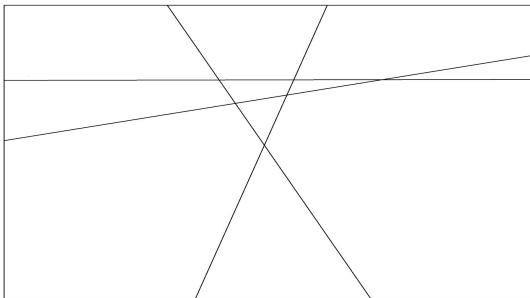
7

4

11

Explanation

- One line divides a page into two regions. A second line can divide each of these regions into two, so 2 lines delineate 4 regions (test case 2).
 - A third line can intersect both lines, traversing three regions, each of which is split in two. So $4+3=7$ regions total are created by three lines (test case 1).
 - A fourth line can intersect all three previously drawn lines, traversing four regions, each of which is split in two. So $7+4=11$ regions are delineated. (test case 3)



CROWDFIRE IITK - SOFTWARE PROFILE

2 hrs

(4 coding question)

1. Total no of string with only “abc” where character “a” “b” “c” occur at least once
IS THE TOTAL POSSIBLE LENGTH OF STRING GIVEN?
Yes

Ex length no of string

1 0

20

—

2. Given a string and int M, Delete M characters to produce Lexicographically largest string

Ex

input-->“eadb” M = 2 output→ “ed”

Keep a stack of letters in decreasing order from bottom to top. When we encounter a character, keep popping the stack till we get a character at top strictly greater than current element and still there are characters to delete.

3. Problem Name SHAKTIMAN’s DICE

There was very long problem description but problem was very easy

Shaktiman invented some dices which can have total no of faces between 1 to 9 including both

First line of input contains N turns AND M dices

Player at every turn will throw all dices but in any order

SO next N lines contain output of M dices throws

EX.

N=3 M = 3

Turn1 -> 1 6 9

turnn2 -> 8 5 4 (NOTE dices can be thrown in any order)

turn 3 -> 1 2 3

So you need to output minimum sum of faces of dices such that above turns is possible

OUTPUT FOR ABOVE

4 + 6 + 9

For above throws to be possible minimum sum combination is

Dice1 should have 4 faces

Dice2 should have 6 faces Dice3 should have 9 faces

4. Name - Passcode Hero (Problem is available in previous years Documents)

// someone please put up the question

Tesco Bengaluru (15 LPA), IITM 10th October

Do not enlarge the figures below. Please download them to your computer and check them.

This will prevent the document getting too long. Thanks for

2 Questions	Max. Marks: 200.0
2 Programming Questions	
Q 1 Number of Routes Max. Marks: 100.0	First line is an integer T denoting number of test cases. Each test case has two lines. First line has two integers X Y. Second line has four integers N M A B, where N and M are as mentioned in the statement and (A,B) is bottom-left co-ordinate of the area sold to construction company. Output Format: For each test case, print single integer in a separate line, output for the test case. As answer could be very large number, print answer mod 100000007.
Q 2 Generic base number conversion Max. Marks: 100.0	Constraints: $1 \leq T \leq 10$ $3 \leq X,Y \leq 500000$ $1 \leq N \leq X$ $1 \leq M \leq Y$ $0 \leq A \leq X - N$ $0 \leq B \leq Y - M$ Sample Input (Plaintext Link) 2 3 3 1 1 1 1 4 4 2 2 1 1 Sample Output (Plaintext Link) 20 34

Time Limit: 2.0 sec(s) for each input file.
Memory Limit: 256 MB
Output Limit: 1000000000



//I think someone deleted some screenshots. Here is a [link](#) to the enlarged Tesco Ques Screenshots that I downloaded earlier.

Tesco @ IITG , 18th oct

Do not enlarge the figures below. Please download them to your computer and check them.

This will prevent the document getting too long. Thanks for your cooperation.

2 Questions **Max. Marks: 200.0**

2 Programming Questions

● 1 **Weird Elevator**
Max. Marks: 100.0

● 2 **The Jumping Frog**
Max. Marks: 100.0

Question 2 **Max. Marks 100.00** 

The Jumping Frog

There was a small pond besides a road in Babylon . There were N consecutive stones in that small pond . Each stone had a no 1 , 2 , or 3 written on it .

At the farther end of the pond lived a frog with his family . In order to search for food the frog family crossed the pond by jumping on stones as shown in the image .



A Professor passing by the road observed the frog's motion and found that each Frog performed a sequence of steps to reach the end. Each step was lead in the positive direction, that is, if current position of the frog was stone k, the next jump will take frog to one of the stones $k+1$ through N stones ,inclusive . Jumps made by the frog can be short/long . However, longer jumps are costly as jump of length l required work of about $\text{pow}(l,2)$.

Additionally, Frog's jump on the stones in a cyclic order 1,2,3, 1,2,3 and so on That is, Frog started on the 1st stone with no 1, made a jump to a stone with no 2 on it , from there to a stone with no 3 , and so on, always repeating no's 1, 2, and 3 in a cycle.

Notes : 

2 Questions **Max. Marks: 200.0**

2 Programming Questions

● 1 **Weird Elevator**
Max. Marks: 100.0

● 2 **The Jumping Frog**
Max. Marks: 100.0

Notes :

- * The 1st stone has a no 1 written on it by default .
- * There wouldn't be any such cases in which the frog's cant cross the pond .

Professor was impressed by the clever Frogs and thus Transformed the situation into a computing problem . He wanted his student's to print the minimum cost to reach the last stone .

Input

- You would be a given string S with value of each stone .

Output

- Print Minimal cost of reaching the end Mod $1e9+7$. (Following an Optimal Strategy)

Constraints

`1<=L<=4000`

Sample Input ([Plaintext Link](#))
12223

Sample Output ([Plaintext Link](#))
8

Explanation

Sample Case
Length = 5

2 Questions Max. Marks: 200.0

12223 8

2 Programming Questions

● 1 **Weird Elevator**
Max. Marks: 100.0

● 2 **The Jumping Frog**
Max. Marks: 100.0

Explanation

```
Sample Case  
Length = 5  
stone 1 ,2 ,3 ,4 ,5  
Optimal way -> stone 1 -> stone 3 -> stone 5  
Soln :-)  
since jump lengths are l1 = 2 , length l2 = 2  
thus,  
pow(l1,2)+ pow(l2,2) ----> l1 * 2 + l2 * 2 = 8
```

Time Limit: 2.0 sec(s) for each input file
Memory Limit: 256 MB
Source Limit: 1024 KB
Marking Scheme: Marks are awarded if any testcase passes
Allowed Languages: C, C++, C#, D, Java, JavaScript(Rhino), Perl, Python

+ New Submission All Submissions ?

If possible plz add sample test cases for Weird elevator.

Tesco@IITD, Associate Software Development Engineer, 14th October

Time : 2 hrs

Platform : HackerEarth

1. Count the Apple problem

There are N number of farms. A man travels from his home to each farm in order to collect the apples. He is having an initial energy P. It takes one unit of energy to move from one farm to another. He can not move to the next farm if he is out of energy. In that case instead of collecting apples from the farm he can drink milk from the same to boost his energy. The farms will provide him milk only on the condition that he won't take any apple from that farm. The aim is to maximize the number of apples he will collect on his journey.

Input :

P indicating energy, N indicating number of farms

milk[N] : N entries indicating milk associated with each farm

apples[N] : N entries indicating apples associated with each farm

Note : It takes one unit of energy to move from his home to the 1st farm.

Output :

Maximized number of apples collected

Example :

5 1
5 4 3 2 1
5 4 3 2 1

Output : 10

km
5 1
2 0 0 4 0
5 4 3 2 1

Output : 7

Farmer has to come back to home or not???No

Approach Greedy or Dynamic ??

Greedy doesn't give a perfect solution in this case!

This is a variety of coin exchange problem. Can be solved recursively and using DP.

Recursive solution is having time out problem.

^^ How to solve using DP ?

Any link to this question?

Does recursion+memoization give timeout??

2 . The number game

Samu and Vibhu are sisters, Samu being the elder. They are in a mood to play a game. They found that there are N numbers written on the table in front of them. They started to play the cutting game. A person wins when 3 consecutive numbers are being cut ($x, x+1, x+2$). Both of them played optimally in turns.

Assume that Samu being the eldest is the first to play the game.

Input :

N indicating the number of consecutive numbers

Output :

"Samu" if she wins, else "Vibhu"

Example :

In this case it is clear that Samu wins the game. Let Samu cut the first number. Whichever number Vibhu cuts in her turn, Samu will have the next cut and will have three consecutive cuts and wins the game.

Did Anyone understand this ?

I guess $N \% 6 == 0$ then "Vibhu" wins else "Samu" wins ! Correct me if I am wrong, seems like a number theory problem.>>Dude I tried that in exam, it failed every test case. I don't know the answer, but this is not correct.

For $n >= 6$ vibhu wins always for $n <= 5$ samu wins always

No, This is not a correct approach. Solve this question using Grundy number

[Link](#)

Tesco@IITR & IITH

1. Given a $n * n$ matrix with either a 'P' police or 'T' thief in each cell, a police officer can only catch a thief in its row who is in the range k (given) of the police officer in either direction.

Find out maximum no. of thieves that can be caught.

Each police officer can catch up to 1 thief only.

Example: Try to do Dummy login and take screenshot

Will do that next time. Is the problem statement clear?? Yep this one is clear.

1

$n=3 \ k=1$

P T P

T P T

T T P

Solution is 3. Every police officer can catch a thief.

Approach : Can be done in $O(n)$ by using two pointers. Prepare two arrays to store indices of police and thief. Now use two pointers to mark current police and current thief, initialized to 0. If thief is in range of police, increment both police and thief pointers and increase count by 1, else if thief is on left outside the range increase thief pointer, else increase police pointer. Repeat till both police and thief pointers are less than $X.end()$ [X can be police or thief vector containing, their indices].

Process each row independently.

Overall Complexity : $O(n^2)$ ($1 \leq N \leq 1000$) [for whole matrix, $O(n)$ for each row.]

Hint:

Use greedy for every row.

2. Manjhi: The mountain man

Manjhi and the dragon with power 'p' is separated by some rocks (array $H[n]$), with labels 1,2 or 3. Every rock (but not the 1st and the last, as then the dragon will be able to attack the village) must be broken to fight with the dragon. Breaking a rock decreases power of dragon by the factor($H[i] \cdot H[i-1] \cdot H[i+1]$) and takes $H[i]$ power of manjhi to break it.

Manjhi wants to minimize the power of dragon after breaking all the stones except 1st and last.

Can you help Manjhi??

Hint:

Use dynamic programming. Similar to matrix chain multiplication

Think why greedy won't work.??

PLEASE DO NOT CUT (Ctrl+X) or remove the questions' screenshot. It's coming and going again and again.. !!!!

WalMart Labs IITH 12th October 2016

WALMART CG CUT OFF??????? IITH??? 7.0

WAS THERE ANY MCQS? NO,

Package ? 21.7LPA CTC

90 minutes 3 coding questions

Platform: HackerEarth

SPRING BREAK APPROACH ?? GREEDY ?? (No, can be done using dp maintaining 4 state variables(one for each option- 00,01,10,11) for each day) Can u explain in detail

Spring Break

Akshat has 'n' days of spring break. He decided to use his time productively by improving his programming skills through competitive coding contests and doing yoga the other time. Akshat has the following information about these 'n' days: whether his favorite yoga studio is open and whether a contest is being carried out over the Internet on that particular day or not.

For a given i-th day there are four options:

1. the yoga studio is closed and no contest is planned;
2. the yoga studio is closed and a contest is planned;
3. the yoga studio is open and no contest is planned;
4. the yoga studio is open and a contest is planned.

On each of these days, Akshat can do only one of the following :

take rest

OR

write the contest (if it is being conducted on this day)

OR

do yoga (if the yoga studio is open on this day)

Find the minimum number of days on which Akshat will take rest. The only limitation that Akshat has is that he does not want to do the same activity on two consecutive days: i.e, he will not do yoga on two consecutive days and he will not write any contest on two consecutive days.

?

1.

Can someone explain the solution?

Sol: <https://www.careercup.com/question?id=5694857792192512>
was brute force working???????????

Can u explain why this solution will work? How are you using your preprocessed array?

2.

K monkeys were ordered by Madari (Master) to sit on N chairs arranged ($N \geq K$) . But the problem arises when monkeys sit on chairs in an unorganized fashion. The objective of the Madari was to arrange them such that all the monkeys are seated next to each other. There should be no empty seat between any two monkeys. The monkeys are trained in such a way that, they can jump only to the next chair(if the chair is empty). One instruction from Madari makes one monkey to shift one position, left or right, if the chair is empty. Find the minimum number of instructions Madari has to give in order to make the monkeys sit next to each other.

Input

The first line of the input contains an integer T denoting the number of test cases. The description of T test cases follows.

Each test case consists of a single line containing 0s and 1s separated by space. The total number of 0s and 1s in each line is N. 1 signifies presence of monkey on a chair and 0 represents an empty chair.

Output

For each test case, output a single integer in each line denoting the minimum number of instructions Madari has to give in order to make the monkeys sit next to each other.

Constraints

$1 \leq T \leq 100$

$1 \leq N \leq 1000000$

Sample Input ([Plaintext Link](#))

```
2
1 0 0 1
1 0 0 1 1 0 1
```

Sample Output ([Plaintext Link](#))

```
2
3
```

solution??

3. Third question is incomplete. Can someone please complete it.



Tree Queries

Devu and Churu like to play with trees a lot. Today, they have a rooted tree T consisting of N nodes and each node in the tree is labelled uniquely with the integers from 1 to N . Node with label 1 is the root of the tree T .

To play with this tree, They have decided to perform Q operations on their tree T where each operation consists of some number of nodes of the given tree T and asked for the label of highest level node which contains all the given nodes in its subtree.

Please refer sample test case for better understanding of the problem.

Input

First line of input contains 2 space separated integer N and Q denoting the number of nodes in the tree T and number of operations to be performed. Next $N-1$ lines of input contains a single integer where the integer in the i^{th} line is the parent of node with label $i+1$. Next $2 * Q$ lines of input contains Q operations where each operation consists of 2 lines and has following format.

- First line of each operation contains an integer K denoting the number of nodes in the given operation.
- Second line of each operation contains K space separated integers denoting labels of nodes in the given operation.

Output

For each of the Q operation, Print the required answer in a new line.

Constraints

- $1 \leq N, Q \leq 10^5$

- $1 \leq n \leq N$
- sum of K over all operations does not exceed 10^5
- Given nodes in any operation are labelled with integers from 1 to N

Sample Input (Plaintext Link)

```
5 5
1
1
2
2
2
2
4 5
1
2
3
2 4 5
3
3 4 5
5
1 2 3 4 5
```

Sample Output (Plaintext Link)

```
2
2
2
1
1
```

Walmart IIT-B 27-10-2

Can anybody post “STANDUP COMEDY” QUESTION?

Q1. **First Question Please @IITB**

What was the question ?? Is this the answer ?

Given an array of numbers and integer m. for m iterations we should find the largest value in the array and add it to cumulative sum and decrement that value by one.

Constraints: size of array $\leq 10^5$

$1 \leq m \leq 10^6$

$1 \leq a_i \leq 10^5$

Q2 Given a string if there are repeating and consecutive substrings in that string compress them as follows.

GTTGTT \rightarrow GT(2)GT(2) \rightarrow (GT(2))(2) Final answer should be the number of literals in the compressed string, in this case **2**.

AGCCACCG \rightarrow AG(C)2A(C)2G \rightarrow **6**.

Any solution for this question ?????

Q3 Monkey(repeated, same as IIT H)

Jivox Software India Private Limited,

IITM, 17 LPA, 14 Oct

Pen Paper

15 Aptitude questions, 25 Technical questions (Data Structures, Algorithms, OS, C/C++ output prediction)

Please put some questions. **Questions Bro!!**

Riverbed Technology, IITM, 10 LPA, 15 Oct

49 questions, Hackerrank (Mostly easy technical questions, C, C++, Unix commands, OS, Networks, Data Structures, 2-3 aptitude questions)

Please put some questions. If platform was hackerrank, try logging it again with dummy details, take screenshots of questions and put it here.

Cannot login again. Questions were very basic.

1. Pointer to an array of pointers to integers
2. fork(); fork(); fork(); fork(); how many processes. Wasn't this in
3. ? Or in Riverbed too?

Walmart at IITK , 18th oct (Statistical Analyst)

CAN YOU WRITE SOME QUESTIONS?

Platform :HackerEarth

ANY CGPA CUT OFF ?

No, all who applied were shortlisted for test.

Test duration?? Ans: Test duration was 1:15 hrs.

There were 33 objective question:

Is there any coding questions ??

Walmart at IIT k,4 Nov

Platform:HackerEarth (**NO** full screen mode)

3 questions - 90 minutes. (All the best guys! :))

Playing with Strings

Often we come across lengthy strings with repetitive patterns, such as the repetitive ATGC patterns in DNA strings. Sometimes we wish to support string compression by reducing the redundancy in the string. One way to reduce redundancy is the following approach:

If multiple identical substrings (M) are adjacent to each other in a string (S), we can represent the string S as X (M)_n Y, where X and Y are the non recurring patterns, and n is the number of adjacent occurrences of M.

For example, Suppose we have a string "GTTGTT". It can be reduced to (GTT)2 . The length for this string is 3, as it is containing 3 characters, 'G', 'T', 'T'. (Parenthesis and count are not considered in length). It can as well be reduced to (G (T)2)2 . The length for this string is 2, as it is containing 2 characters, 'G', 'T'. The latter string is more optimal as it cannot be compressed further. So the optimal length of the string is 2.

Consider another example, say "TATTAT". It can be reduced to (TAT)2 as well as TA (T)2 AT. But the first compression is more optimal as its length is less than the latter one's.

Input

Input will be a line consists of strings made of 4 characters 'A', 'T', 'G', 'C'. String length L : 1 <= L <= 100

Output

Output will be a line containing the length of optimally compressed string.

Sample Input ([Plaintext Link](#))

GCATTATTATTGC

Sample Ouput ([Plaintext Link](#))

6

Explanation

GCATTATTATTGC can be compressed to GC (A (T)2)3 GC, hence the length is 6.

Pick a Team

There exists a pool of P unique players. These players have to be paired up in teams of two, i.e. we need to create $P/2$ teams from the pool of P players (assume that P is always even). No two players can have the same age. A team will always consist of one senior and one junior player by criteria of age. The senior person in each team will be the captain of the team.

Each player has two salaries associated with him (but only one salary will be paid to him) . The two associated salaries denotes , his salary as a captain of a team and his salary as the younger person in the team. The actual salary paid to the player depends on the role he plays in the team, i.e. whether he's the captain or the younger person in his team. Furthermore, a player's salary as a captain will always be greater than his salary as the younger person in the team.

Pair the players in such a way that the total salaries paid to them is minimum and output the total salary that needs to be paid.

Input: The first line of input is the number P which denotes the number of players. That is followed by P lines. Each line i will contain two salaries, X and Y (space separated) for player i , where X will be salary the person will get if he is the captain of the team, and Y is the salary person will get if he is the younger player in the team.

The players provided in input are in sorted order by their age which means that the first line will contain information about the youngest player, the second line will contain information about the second youngest player, and so on.... The last line will contain the information about the oldest member in the team.

Output:

The minimum total salary which needs to be paid to the players when arranged into $P/2$ teams.

Constraints:

$1 \leq P \leq 10000$

for each player, $1 \leq X, Y \leq 1000000$

Sample Input ([Plaintext Link](#))

```
4
8000 3000
6000 1000
3000 1000
9000 4000
```

Sample Output ([Plaintext Link](#))

```
16000
```

Manager's Choice

You are the manager of a store that has n items for sale. You have n customers and each customer has his/her preference for an item. One customer can buy at most one item.

You have a preference matrix where a cell (i, j) indicates customer i's preference for item j. If cell (i,j) = 1 then customer i would like to buy item j else if cell (i,j) = 0 then customer i does not want to buy item j.

You want to sell one item of their preference to each customer i.e. you don't want any customer to go away without buying an item. Your task is to find out the number of ways in which n different items can be sold to n customers.

Input: First line of input contains number of test cases. Each test case starts with a number n. Followed by an n x n matrix of 0s and 1s.

Output: For each test case, a single number indicating the number of ways n items can be sold to n customers.

Constraints: Maximum number of customers is 20. You can assume a customer wishes to buy at least one item. Maximum number of test cases per input file is 75.

[Sample Input \(Plaintext Link\)](#)

```
3
3
1 0 0
0 1 0
0 0 1
3
1 0 1
0 1 0
1 0 1
2
1 0
1 0
```

[Sample Ouput \(Plaintext Link\)](#)

```
1
2
0
```

Explanation

1. First test case: Each customer wants to buy only one item and those items are distinct. So there is only one possible way.
2. Second test case: First customer wishes to buy either 1st or 3rd item. Second customer wants to buy only 2nd item. Third customer wishes to buy either 1st or 3rd item. So there are only two ways. One way where first customer buys 1st item, second customer buys 2nd item and third customer buys 3rd item. Other way where first customer buys 3rd item, second customer buys 2nd item and third customer buys 1st item.
3. Third test case: Both first and second customer wish to buy only 1st item. So there will be one customer who will not buy any item. The answer to this scenario will be 0 as it is invalid.

+

Most of them were on prob and stats (basic prob. , expectation question was $E(e^{(1/(1+x)})$, question was $E(e^{(1/(1+x)})$, and prob distribution (normal , binomial , uniform) , and prob distribution (normal , binomial , uniform) , Some question were on basic R programming

Some were on basic hypothesis testing , one way anova , two way anova.

One question was on bayesian theorem

What type of R programming questions are there?

Mckinsey , IITM , 13 oct

The test was written 1 hr. Pattern was same as McKinsey Problem Solving Test. Refer below site to get idea about pattern of McKinsey Problem Solving Test.

<http://www.mckinsey.com/careers/interviewing>

Q. Which campus did it visit ? and any questions you can recall? A: It was full of long passage and analytical and DI questions based on that.

Mckinsey , IITK, 24th OCt,

Same as above but additional ½ hrs. Apti test was also there.

Opera Solutions(Analytics Specialist) IIT Delhi

Total 90 minutes MaxMarks: (30+30)

30 MCQ Questions - General Mathematics and Aptitude + Reading Comprehension + Data Interpretation (No negative Marking)

Q.Which platform was used? A: Pen and Paper :P

Q. Were they repeating previous years CAT ques for Apti? A: Don't know about CAT questions, but they were of that level only.

5 Subjective (Quant)

1. There is a big line of people waiting outside a theater for buying tickets. The theater owner comes out and announces that the first person to have a birthday same as someone standing before him in the line gets a free ticket. Where will you stand to maximize your chance.
2. https://en.wikipedia.org/wiki/Strobogrammatic_number You had to calculate count of such numbers ≤ 100000 **HOW TO DO MANUALLY???**
3. A throws dice upto 4 times, B can stop anytime and number on last throw will be his score. Describe a strategy to maximize B's score.
4. Find a 7 digit number with all distinct digits and divisible by every digit.
5. A,B are playing Table tennis. A is 1.2 times better than B. But every time B wins a point his score increases by 1.5 (instead of usual 1). Calculate the probability

that A wins the game. (A player wins when his score is ≥ 21 and the difference is ≥ 2).

All the Best! Thanks :)

MediaTek, IITM, Package : 11 LPA

Profile?? R&D Engineer

Do not depend on answers of last section. Its all guess work :P, I am not from EE background

Do not enlarge the figures below. Please download them to your computer and check them.

This will prevent the document getting too long. Thanks for your cooperation.

How to download these images? Copy paste into another doc of yours.

<p>Q 2 Find the missing term(s) in the series given below: PITS, INVOI, LXBD, PWV, ? Ops: A. <input type="radio"/> A B. <input checked="" type="radio"/> BHDQ C. <input type="radio"/> HMOC D. <input type="radio"/> POKJ reset answer</p> <p>Head the following information carefully and answer the questions that are given below it:</p> <p>A sales representative plans to visit each of the six companies M, N, P, Q, R and S exactly once during the course of one day. She is setting up her schedule for the day according to the following conditions:</p> <ol style="list-style-type: none"> I. She must visit N before R and H. II. She must visit N before Q. III. The third company she visits must be P. <p>Q 3 The sales representative could visit any of the following companies immediately after P except:</p> <p>Ops: A. <input checked="" type="radio"/> S B. <input type="radio"/> M C. <input type="radio"/> O D. <input type="radio"/> H reset answer</p>	<p>Read the following information carefully and answer the questions that are given below it:</p> <p>A sales representative plans to visit each of the six companies M, N, P, Q, R and S exactly once during the course of one day. She is setting up her schedule for the day according to the following conditions:</p> <ol style="list-style-type: none"> I. She must visit N before R and H. II. She must visit N before Q. III. The third company she visits must be P. <p>Q 4 The sales representative could visit any of the following companies immediately after P except:</p> <p>Ops: A. <input checked="" type="radio"/> S B. <input type="radio"/> M C. <input type="radio"/> O D. <input type="radio"/> H reset answer</p>
<p>Study the flow given in the following diagram and answer the questions that follow.</p> <p>Box No. 1 2 3 4 5 6 7 8 9 10 _____ 25 5 20 29 2 27 11 6 23 9</p> <p>Add: (number in Box 5) + (number in Box 9). Put the result in Box 3.</p> <p>Is (number in Box 6) > (number in Box 7)?</p> <p>Multiply: (number in Box 10) * (number in Box 2). Put the result in Box 7.</p> <p>Is (number in Box 8) > (number in Box 9)?</p> <p>Subtract: (number in Box 7) - (number in Box 5). Put the result in Box 10.</p>	<p>Q 5 Aptitude</p> <p>10 questions, 1 mark each</p> <p>Q 1 The front and top views of a cube are given below. Choose from the Answer figures the one which shows the back view of the given cube.</p> <p>Front view: Top view: </p> <p>Answer figures:</p> <p>(a) (b) (c) (d) </p> <p>Ops: A. <input checked="" type="radio"/> (a) B. <input type="radio"/> (b) C. <input type="radio"/> (c) D. <input type="radio"/> (d) reset answer</p>
<p>Q 18 A problem encountered in multitasking when a process is perpetually denied necessary resources is called</p> <p>Ops: A. <input checked="" type="radio"/> Deadlock B. <input type="radio"/> Spiking C. <input type="radio"/> Inversion D. <input type="radio"/> Starvation reset answer</p>	<p>Q 14 Radix of binary number system is:</p> <p>Ops: A. <input type="radio"/> B & C B. <input checked="" type="radio"/> 2 C. <input type="radio"/> 3 D. <input type="radio"/> 0 reset answer</p>
<p>Q 19 No. of stages in 16 line decoder required to make a 8 input to 256 line decoder is ?</p> <p>Ops: A. <input type="radio"/> 17 B. <input checked="" type="radio"/> 16 C. <input type="radio"/> 32 D. <input type="radio"/> 64 reset answer</p> <p>Q 20 If a clock with time period T sec is applied to an N-stage shift register, the output of the final stage will be delayed by</p> <p>Ops: A. <input type="radio"/> $(N-1)T$ sec B. <input checked="" type="radio"/> NT sec C. <input type="radio"/> NT sec D. <input type="radio"/> None of these reset answer</p>	<p>Q 15 Boolean logic:</p> <p>If $A+B+C = B+CD, C=D+E, D=E+F^2, E=GH, F=C+D+A', G=BH$ then</p> <p>Ops: A. <input type="radio"/> $B = C$ B. <input checked="" type="radio"/> $E = 1$ C. <input type="radio"/> $E = 1$ D. <input type="radio"/> $B=1$ reset answer</p> <p>Q 16 The time complexity of Binary search algorithm in worst case is</p> <p>Ops: A. <input checked="" type="radio"/> $O(n)$ B. <input type="radio"/> $O(1)$ C. <input type="radio"/> $O(\log n)$ D. <input type="radio"/> $O(n \log n)$ reset answer</p> <p>Q 21 Threading occurs when...</p> <p>Ops: A. <input type="radio"/> two processes try to access the same resource. B. <input checked="" type="radio"/> the size of the data to be inserted is less than the size of a page in memory. C. <input type="radio"/> the processor's mapping table discovers that the program is trying to use an address that doesn't currently exist. D. <input type="radio"/> too much of the time is spent in waiting to swap between memory and disk. reset answer</p> <p>Q 22 Two main measures for the efficiency of an algorithm are</p> <p>Ops: A. <input type="radio"/> Complexity and capacity B. <input checked="" type="radio"/> Data and space C. <input type="radio"/> Processor and memory D. <input type="radio"/> Time and space reset answer</p> <p>Q 23 Threading occurs when...</p> <p>Ops: A. <input type="radio"/> two processes try to access the same resource. B. <input checked="" type="radio"/> the processor's mapping table discovers that the program is trying to use an address that doesn't currently exist. C. <input type="radio"/> the size of the data to be inserted is less than the size of a page in memory. D. <input type="radio"/> too much of the time is spent in waiting to swap between memory and disk. reset answer</p>

3 C Programming

10 questions, 1 mark each

Q 26 What is the output of the following code?

```
1. void swap(int* x, int* y)
2.
3. {
4.     int* temp=x;
5.     y = x;
6.     x = temp;
7. }
8.
9. void main()
10. {
11.     int a=10;
12.     int b=20;
13.     swap(&a, &b);
14.     printf("%d,%d", a, b);
15. }
```

Ops: A. 10, 20
B. 20, 10

Q 27 What data structure is used for depth first traversal of a graph?

Ops: A. BFS
B. None of these
C. DFS
D. None
reset answer

Q 28 What will be the output of the following c program?

```
1.
2. #include <stdio.h>
3. int main()
4. {
5.     int arr[2][2]={{10,20},
6.                   {30,40}};
7.     int *arr2[2]={arr[0],arr[1]};
8.     printf("%d %d",*(arr2[0]),*(arr2[1]));
9. }
```

Ops: A. None of these
B. 10, 20
C. Compilation error
D. None
reset answer

Q 29 What is the output of the following program?

```
1.
2. #include <stdio.h>
3. void main()
4. {
5.     static int arr[2][2];
6.     static int arr1[2];
7.     static int arr2[2];
8.     int (*arr2)[2]={arr1,arr2};
9.     printf("%d %d",*(arr2[0]),*(arr2[1]));
10. }
```

Ops: A. 2 4
B. 2 8
C. 4 2
D. 4 8
E. None of these
reset answer

Q 30 Explain int (*var1) (int *)(int *); [10]

Ops: A. None of these
B. Declare var1 as pointer to function (pointer to function (pointer to int))
C. Declare var1 as pointer to function (array 10 of pointer to function (pointer to int))
D. Declare var1 as array 10 of pointer to function (pointer to function (pointer to int))
reset answer

Q 31 What is the possible address of all variables stored on the heap/stack memory location?

The addresses of

a1@0x1040, a2 @0x1048, a4 @4725d8c

```
1.
2. #include <stdio.h>
3.
4. static int arr[2]; // a1 address is 0x1040
5. static int arr1[2]; // a2 address is 0x1048
6. static int arr2[2]; // a4 address is 0x4725d8c
7. int *arr3[2];
8. static int arr3[2]; // a5 address is 0x4725d90
9. static int arr4[2]; // a6 address is 0x4725d98
10. int arr5[2];
11. printf("arr5 ", arr5);
12. }
```

Ops: A. a2 @0x1040
B. a2 @0x1048
C. a3 @0x1046
D. None of these
reset answer

Q 32

```
1.
2. long sum(long N)
3. {
4.     if (N > 1)
5.         return (N + sum(N/2));
6.     else
7.         return 2;
8. }
9.
10. void main()
11. {
12.     printf("%d", sum(10));
13. }
```

The result of the given code will be 34.

Ans: 36 Saved at 12:09 PM

Q 33 What is x in the following program?

```
1.
2. #include <stdio.h>
3. int main()
4. {
5.     typedef char (*ptr[1])[10];
6.     ptr x;
7.     return 0;
8. }
```

Ops: A. x is a function pointer
B. x is an array of three function pointers
C. x is an array of three pointer
D. Error in x declaration
reset answer

Q 34

```

1. #include <stdio.h>
2. int foo(int val) {
3.     if (val > 0) {
4.         printf("%d\n");
5.         return 1;
6.     }
7.     printf("-%d\n");
8.     return -1;
9. }
10. int bar(int val) {
11.     if (val < 0) {
12.         return foo(val);
13.     }
14.     int max(int arg1, char *arg2[]) {
15.         if (foo(arg1) > bar(arg2[0])) {
16.             printf("1st");
17.         }
18.         else {
19.             printf("2nd");
20.         }
21.         return 1;
22.     }
23.     if (foo(val) > bar(val)) {
24.         printf("new");
25.     }
26. }
27. 
```

Q 39 Codes which are used in WCDMA
Ops: A. Walsh codes
B. None of these
C. DS/VS codes
D. Both 1 and 2
[reset answer](#)

Q 40 Which one mechanism is chosen to avoid bursty error when data transmitting?
Ops: A. Frequency hopping
B. Modulation
C. Interleaving
D. channel coding
[reset answer](#)

Q 41 The Fourier transform of a rectangular function is:
Ops: A. Triangle function
B. sinc function
C. rectangular function
D. None of these
[reset answer](#)

Q 45 For signal $f(t) = 8 \cos(200\pi t + 45^\circ)$, what is the average and its power?
Ops: A. 8.64
B. 4, 16
C. 0.22, 624
D. 0, 32
[reset answer](#)

Q 46 A 32-bit address bus allows access to a memory of capacity
Ops: A. 4 Gb
B. 16 MB
C. 64 Mb
D. 10b
[reset answer](#)

Q 47 Which one is NOT the advantage of OFDM?
Ops: A. No need to synchronize between Receiver and Transmitter
B. Better bandwidth efficiency
C. Good in resisting multi-path decay
D. Easier equalizer design and implementation
[reset answer](#)

Q 34

```

1. #include <stdio.h>
2. int foo(int val) {
3.     if (val > 0) {
4.         printf("%d\n");
5.         return 1;
6.     }
7.     printf("-%d\n");
8.     return -1;
9. }
10. int bar(int val) {
11.     if (val < 0) {
12.         return foo(val);
13.     }
14.     int max(int arg1, char *arg2[]) {
15.         if (foo(arg1) > bar(arg2[0])) {
16.             printf("1st");
17.         }
18.         else {
19.             printf("2nd");
20.         }
21.         return 1;
22.     }
23.     if (foo(val) > bar(val)) {
24.         printf("new");
25.     }
26. }
27. 
```

Q 48 Select all the statements which are TRUE:
1. An FIR filter requires more computation time on DSP and more memory.
2. FIR filters require feedback, hence are inherently unstable.
3. FIR filters is used when a linear-phase filter is desired.
4. IIR filters generally preferred over FIR filters in multirate (decimating and interpolating) systems.
Ops: A. All of these
B. 1 & 2
C. 2 & 3
D. 1 & 3
[reset answer](#)

Q 49 OFDM advantage include:
1. OFDMA can achieve higher spectral efficiency
2. Equalisation can be undertaken on a carrier by carrier basis.
3. OFDM is not sensitive to Doppler shift
Ops: A. 1 & 2
B. 2 & 3
C. 1 & 3
D. 1, 2 & 3
[reset answer](#)

Hasura, IITM, 22 October 2016, Package : Junior Engineer : 13 LPA, Senior Engineer : 19.5 LPA

1)

There are N numbers from 1 .. N

And given M magic numbers, and their corresponding substitute string.

For all the num in 1 .. N, if num is not divisible by any magic print num itself,

Else print all the substitute string of the magic numbers by which num is divisible.

E.g.

Input

6 → N

2 → M

2 Idli

3 Sambar

Output

1
Idli
Sambar
Idli
5
IdliSamba

2)

Design a compiler for Flipbook

Nutanix ----Questionssssss.....

Please add dates

IITK-27 Oct Any cv shortlisting done? if done cpi cutoff for shortlisting? //Please add questions....

Process will start from 2 NOV

IITM-5 Nov

IITR-27 Oct

IITG 1st Nov at 10:00 P.M.

IITD 1st Nov AT 10:30 PM

IITK 1st Nov at 10:30 PM

IITBHU 14th Nov

NUTANIX questions??? IITR platform????

There were two questions and the test cases and the way they were giving input was not good. Here are the questions.

1) You are given an array of single digits. You have to return the biggest nos possible such that it has k digits and the digits are in order in the array eg array=7,5,9 and k=2 ans is 79 Constraint??repetition of digits allowed??

Any solutions for 1???Please

DP Solution in n^k possible. Anything better?

(Can do in $O(n)$ using stacks. For each digit maintain a stack of the indices where that digit appears. Now start from the last digit and keep popping) -> Doesn't work for [2,3,9,1] k=3

Can someone explain above approach ????

Can be done on O(n) using hashmap.

Solution: search from the kth element from the last, and go upto first element, find maximum of it, lets say a[j] is max, now the problem reduces to finding k-1 digit no. from index j+1...n

Eg: 5 2 4 1 2 5 6 3 ; k = 4

=> 5 solve(2,4,...3; k=3)

=> 5 5 solve(6,3; k=2)

=> 5 5 6 solve(3;k=1) = 5 5 6 3

Can be done by storing maxima of a[0]...a[j]

Can use segment tree in $k \log n$?

Query for max digit in the range 0 to n-k (leave last k-1 digits)

Let it be ith index. The n range for highest digit in range i+1 to n-k+1 (leaving last k-2 digits) and so on. We will get k digits in $k \log n$ time.

2) You are given n drivers. The value of n was not given you were instead given n arrays as input and you had to use the getline to input(so see that). Now you are given three stops eg 4 1 3 that means at t=1 driver 1 will be at stop 4 at t=2 driver 1 will be at stop 1 and at t=4 he will be again at 4 that means we again start traversing the array . You are given n such arrays. Now every driver has some info and they share their info if they are at the same stop and at the same time. You have to tell the tr 1 before and now is going to meet driver 3 then 2 will

Can someone plz rephrase this question?

tell 2 about 1 also.

(Are the arrays all comprising of 3 stops only? If yes then the problem can be solved using disjoint set union in time complexity $n^2 \log(n)$). At each time instant unite all the drivers who meet at the same location ($O(n \log n)$). Keep uniting till there is no decrease in the number of sets for 3 consecutive time periods. This is bound to stop in time $t < 3 * n$.

2nd question solution anyone

Input size is small. Lets do it by bitmask DP :D

(I think we can convert it into a graph problem. (where edges are only between drivers where they met at the same stop at some time. Then just do DFS traversal to know if it

is a single tree.) But this will give only if it is possible or not? What about finding time at which all knows all info?

(Nutanix)?????Constraints????

NUTANIX - IITG 1 Nov 2016

1. <http://www.geeksforgeeks.org/find-zeroes-to-be-flipped-so-that-number-of-consecutive-1s-is-maximized/>
(Variation was asked: all such combinations must be printed, in lexicographic order)
2. LRU Cache: [Similar (but not same) to one on Interviewbit question on LRU]
Maintain two caches: 1-Single touch cache, 2-Multi touch cache. Elements accessed once are present in single touch cache, and those accessed multiple times in multi touch cache. Size of cache is given.
(Don't remember complete question, someone who did that please update & validate)
3. Graph Problem: Given n-1 weighted edges, find the minimum cost to cover all the vertices if you are at node 1 initially (You can stop your journey at any node, you need not come back to node 1).

Nutanix, IIT Madras, 5 Nov 2016

Count Strings

Given a length n, return the number of strings of length n that can be made up of the letters 'a', 'b', and 'c', where there can only be a maximum of 1 'b's and can only have up to two consecutive 'c's.

Example:

CountStrings(3) returns 19

since the possible combinations are:

aaa,aab,aac,aba,abc,aca,acb,baa,bac,bca,caa,cab,cac,cba,cbc,acc,bcc,cca,ccb

and the invalid combinations are:

abb,bab,bba,bbb,bbc,bcb,cbb,ccc

Input format:

A single line having an integer value. This represents the length of the string.

Output format:

A single line having an integer value. This represents the number of possible strings of given length.

Input:

3

Output

19

Delta Sum of Subsets

For a given set S, $\delta(S)$ is defined as

$\delta(S) = \text{last element of } S - \text{first element of } S$

You are given a set S consisting $n(n < 64)$ numbers, find the sum of delta of subsets of S by keeping the order of numbers in the subset same as in input set S. Time

Complexity:

$O(n \log(n))$, Space Complexity = $O(1)$

For example:

$S = \{3, 1, 2, 4\}$, $n = 4$

Subsets(s) and corresponding delta are:

- {3}, $\delta(s) = \text{last}(s)-\text{first}(s) = 0.$
- {1}, $\delta(s) = \text{last}(s)-\text{first}(s) = 0.$
- {2}, $\delta(s) = \text{last}(s)-\text{first}(s) = 0.$
- {4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 0.$
- {3,1}, $\delta(s) = \text{last}(s)-\text{first}(s) = -2.$
- {3,2}, $\delta(s) = \text{last}(s)-\text{first}(s) = -1.$
- {3,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 1.$
- {1,2}, $\delta(s) = \text{last}(s)-\text{first}(s) = 1.$
- {1,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 3.$
- {2,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 2.$
- {3,1,2}, $\delta(s) = \text{last}(s)-\text{first}(s) = -1.$
- {3,1,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 1.$
- {3,2,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 1.$
- {1,2,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 3.$
- {3,1,2,4}, $\delta(s) = \text{last}(s)-\text{first}(s) = 1.$

Output = sum of delta of subsets = $-2 + -1 + 1 + 1 + 3 + 2 + -1 + 1 + 1 + 3 + 1 = 9.$

Input format:

A single line having a sequence of numbers. First number in the sequence denote the set size(n) and rest n number in line will be elements of set. There will be $n+1$ numbers in sequence.

Output format:

Sum of delta for subsets

Example:

Input:

4 3 1 2 4

Output

9

UBER 1.2 Crores! 6, IIT Madras, 24 Oct 2016, Package Dom: 25 LPA + 17LPA variable bonus, International : CTC-182250 USD, Gross annual :110000, Monthly :9166 USD

Hackerrank ?which profile? Both domestic and international, Common exam

What was the time limit? A:Yes Hackerrank,common exam for both,90 minutes.

Are Both Profiles open for B.tech and Mtech?

Blocking Tasks

.In your current company there are a bunch of tasks in the backlog. A task can have a number of blocking tasks, so the tasks cannot be done in arbitrary order. For ex you cannot do task A which is blocked by task B, before you complete task B. You can complete a task only if you have completed all the tasks which block the task. You can complete only one task at a time. You need to determine how many tasks can you complete

Input file

First line of the input will tell you the total number of lines n to follow. Every line will correspond to a single task. The line for each task T begins with the name of the task. The name of each task is a non-empty string without spaces. Following the name of the

task T is the list of tasks that block T. The list is simply a list of names of tasks that block T, separated by spaces. A whitespace followed by a single 0 (zero) is at the end of each line. You may assume that no task has the name '0'.

Output file

The output consists of one number - the maximum number of tasks that can be completed.

Constraints:

$n < 10000$

Example:

Input File:

6

a b d b 0

b c 0

c b 0

d e 0

e 0

f h 0

Output File

4

Explanation:

e can be completed immediately. d only depends on e, so it can be completed next. We can also complete 'h' followed by 'f'. As it can be seen we cannot complete any other tasks.

SOLUTION? (Toposort???) What about 'h' why it can't be completed?

Parenthesis

Each test file starts with an integer 't' - the number of testcases.

In each of the next 't' lines, you are given a string of 'n' characters [either '(' or ')' or '*'].

Your task is to find the number of distinct parentheses expressions you can make by replacing the '*' with either '(' or ')' or balanced removing the '*'.

Note : You have to replace each '*' with one of '(' or ')' or remove it. If removed, assume the string has reduced by 1 character.

Duplicate strings are not allowed. The final expressions to be counted have to be distinct

As the answer may be large, please output it modulo 1000000007 (10^9+7)

Output one integer per line corresponding to each testcase.

Constraints :

$1 \leq t \leq 20$

$1 \leq n \leq 100$

$0 \leq \text{Number of } '*' \text{ in the input string} \leq \min(n, 10)$

Sample Input:

2

$(*)(*)^*$

$*(^{**})^*$

Sample Output

5

9

Explanation

The five possible valid solutions are for the first input are :

$((()))$

$()(())$

$()()()$

$(())()$

$(())$

The nine possible valid solutions are for the second input are :

$((((()))))$

$((())(())$

((())
((())
((())
()(())
()()()
()()
(())

Solution : <https://www.careercup.com/question?id=5734337711439872>

Possible solution?? -- Did anyone tried complete search during test?

Backtracking, expected number of possible string should be 59049 i.e 3^{10} right?

Any other ideas?

Easy Game

You have a box which has G green and B blue coins. You are playing a game: pick a random coin from the box. If the coin is green you get Rupee 1 and if it is blue you pay Rupee 1. At any moment (including the beginning of the game) you are allowed to stop and keep the money you have. If you play the game optimally then what is the ceil of expected amount you will gain. If the expected amount is say 1.4 then answer would be 2 as $\text{ceil}(1.4) = 2$

Notes

- During the game, your balance may be negative.

Constraints

- G will be between 0 and 5,000, inclusive.
- B will be between 0 and 5,000, inclusive.

Example 1:

G = 0, B = 7

Solution: 0

Example 2:

G = 5, B = 1

Solution: 5

Approach?? DP i think.

Can someone explain how to go about it?

Uber IIT k

3 questions

Q1. <https://www.careercup.com/question?id=6239886770176000>

Q2. Volleyball match. (hackerrank)

IIT KGP :: powered by Hackerrank

https://www.hackerrank.com/tests/3sdg77ne3qo/questions/8n7bm4atkic

01h : 28m : 43s to test end

0/3 Attempted

Uber NYE Promotion

This NYE Uber wants to give a new promotion to all the hackers around the world, by setting up a game in which the rules are simple..

AI of the game picks an integer from the list $1, 2, \dots, N$, with a probability p_i of picking i for all $1 \leq i \leq N$. Then you have K attempts to guess his number. On each guess, AI will tell you if its number is higher or lower than its guess. If you guesses AI's number correctly on any of the K guesses, the game terminates and you win. You lose otherwise. As a math pro you were able to compute all p_i 's and with all the probabilities in hand, what is the probability that you win if you play optimally ?

Input: The first line contains two space-separated integers N, K . The second line contains N space-separated numbers p_1, p_2, \dots, p_N , expressed as real numbers with 8 digits after the decimal point.

Output: A single line containing the probability that Jason wins. The output will be considered correct if its absolute error does not exceed 10^{-6} .

Constraints: $1 \leq N \leq 200000$, $1 \leq K \leq 20$, $p_1 + p_2 + \dots + p_N = 1$, $p_i \geq 0$.

Scoring:

- Test cases worth 20 points will have $N \leq 40$.
- Test cases worth an additional 40 points will have $N \leq 150$.

Sample Input:

```
5 1
0.20000000 0.30000000 0.40000000 0.10000000 0.00000000
```

Sample Output:

```
0.40000000
```

Explanation: With only one attempt, Jason wins iff his first guess is correct. So to maximize the probability he wins, he guesses 3 and wins with probability $p_3 = 0.4$.

YOUR ANSWER

9:08 PM
11/9/2016

Q3.

IIT KGP :: powered by Hackerrank

https://www.hackerrank.com/tests/3sdg77ne3qo/questions/3cl1h65mae3

IIT KGP

01h : 28m : 09s
to test end

0/3 Attempted

Rules of uberball are following :

- The match is played by 2 teams
- During one round of the game, a team scores a point, and thus increases its score by 1.
- Both team starts with 0 points each.

The game ends when

- ① One of the teams gets 25 points and another team has < 24 points (strictly less than 24).
- ② If the score ties at 24:24, the teams continue to play until the absolute difference between the scores is 2.

After the game has ended, the final score is given in the format X:Y, which means the first team has scored X points and the second has scored Y points, can you find the number of different sequences of getting points by teams that leads to this final score?

Complete the function `uberball` in your editor. It has 2 parameters:

An integer X.
An integer Y.

It must return the number of different possible sequences of getting those points. As the answer could be very large, return the value of result % ($10^9 + 7$).

Input Format

The locked stub code in your editor reads the following input from `stdin` and passes it to your function:

The first line contains a single integer X.
The next line contains a single integer Y.

Constraints

$0 \leq X, Y \leq 10^9$

Output Format

The locked code in the editor prints the return value of the function.

Your function must return the number of different possible sequences of getting those points. As the answer could be very large, return the value of result % ($10^9 + 7$).

Sample Input 1

9:09 PM
11/9/2016

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https://www.hackerrank.com/tests/3sdg77ne3qo/questions/3cl1h65mae3

IIT KGP

01h : 27m : 38s
to test end

0/3 Attempted

Output Format

The locked code in the editor prints the return value of the function.

Your function must return the number of different possible sequences of getting those points. As the answer could be very large, return the value of result % ($10^9 + 7$).

① Sample Input 1
3
25

② Sample Output 1
2925

Explanation 1
There are 2925 different sequences to reach the score (3,25).

Sample Input 2
24
17

Sample Output 2
0

Explanation 2
There can be no game of uberball that ends with a score of 24 : 17.

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour. [Start tour](#)

Draft saved 09:09 pm

Original code C++ 9:09 PM
11/9/2016

Goldman Sachs

WHAT WAS THE PLATFORM USED? Hackerrank

What is the criteria for shortlisting GS??

CGPA-7.8(@IITD) depends on branch too

GPA > 7(@IITG) depends on branch too

CGPA > 7.5 (IITR) depends on branch too

CGPA>8 (IITB) were shortlisted

I don't think it is 8 for IITB(cs at least), I know people with ~7.9 who were shortlisted. Same for IITM. I guess it was department-wise. The cut-off for some departments was lower. Yes the cut off was department wise at IITD too.

Will the GS test be an online test?? (Unlike previous years tests where it was written offline test) Expecting it to be online as they can't conduct tests in all IITs simultaneously, also this year for Internship they had conducted an online test. Yes.

Is there a CG cutoff for GS test?Yes

Can anybody tell the pattern of GS test??Three Sections were there Quant,Machine Learning,CS

Goldman Sachs @IISc on 17 Oct 2016

Duration of Test? Was each section of given duration or could you spend more time in a section? 90 minutes. No specific time limit for any section

28 MCQs and one coding -> How are these divided into sections ??? Just one section!

Was there negative marking? YES

Were there any OS or Networks Questions or just Algorithms?No OS or Networks.

Does following include subjective questions as well? NO subjective.

Was there probability and stats ? YES

Was there linear algebra..? YES

Was there quant..? YES

Questions on CS section: (Was there any other section ? Total Questions ? Time ?)

Coding:

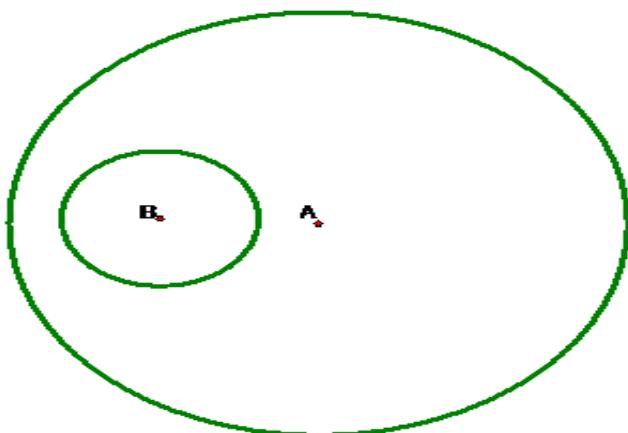
You have 2 station S1 and S2. You want to place a router exact at R distance from Exchange. You want to place a Router at R1 distance from S1 and place another router at R2 distance from S2.

You can place both router at same place. For better communication you want to minimize the distance between two router. Think of an infinite 2D plane. S1 is placed at x_1, y_1 and first router is placed at r_1 distance from (x_1, y_1) . S2 is placed at x_2, y_2 and second router is placed at r_2 distance from (x_2, y_2) .

Write a code which will return minimum distance between two routers.

I think it should be $\max(0, d(S1, S2) - R1 - R2)$. What say? Seems correct -Yes this is the correct answer. Considering one point at origin and the other could be in any of the 4 quadrants. This solution works for all the cases. It is most likely correct.

What about the case where one circle lies inside other? Will this formula work for that



case too?

No in that case answer would be $\max(R1, R2) - \min(R1, R2) - d(S1, S2)$, the earlier formula would give 0 instead of this. Perfect.

Wouldn't it be $R2 - R1$ in the case one circle lies inside other? No. if the Centres don't align. Are you asking if 2 points are not on 1 line?

1. What's the time complexity of optimal algorithm to find first k minimum element from N elements.
 - a. $N \log N$
 - b. $N + k \log N$
 - c. $N \log k$
 - d. None of the above ($O(N)$??? Using i-th order statistics)

Can someone explain this? (ith order???) answer is C:

<http://www.geeksforgeeks.org/k-largest-or-smallest-elements-in-an-array/>

2. Question on Dijkstra's

A graph was given. Some of the edge weights were negative . question was to identify from a given source for how many number of nodes we can identify correct shortest path.

What is the way to solve this? Bellman Ford.

3. Time complexity to find out minimum element from Max Heap. Only insert and extract-max operation is allowed each of that take $O(\log n)$ time

Can we do this in less than $O(n \log n)$?

Yes, we can do this is in $O(n)$ because heap is an array and min of array in $O(1)$

4. What is following statement doing:

$X \& X-1 == 0$

- a. Checking if X is even
- b. Checking if X is power of 2 // or equal to 0 (Shouldn't the answer be d ??) No.
- c. Checking if X is power of 3
- d. None

5. One coding question based on C++ syntax. To find out output.

6. Given a Max Heap,time complexity to find minimum element. (ANS?? $O(N)$?? How ??) The heap is an array after all. Run one scan and get the smallest element.

7. A and B toss a coin, the sequence HT is required such that whoever throws a tail in the last will win. What is the probability of A to win, if A starts the toss? (ANS: 4/9)/

LINK

8. Random Forest theory question. (Can you recollect the question?)

9. Two classifiers were given with training and test error and asked about underfit and overfit.

10. How to improve the accuracy of a classifier given training and test error.f

Options: 1) Add more data points

2) Decrease the features

3) Increase the features

4) Boosting // Combinations of 1,2,3 were given as options in exam

Why is boosting correct?

11. Question on OLS.

(What is OLS? Elaborate please) Ordinary Least square, Regression

Question 12t: which of these four model fits best to the data

- a) Model with feature x,y,z with r square statistics value of 0.4
- b) Model with feature x,y with r square statistics value of 0.3
- c) Model with feature x,y with r square statistics value of 0.87 (Any explanation on this would help.) Explanation : R square is a measure of goodness of fit. But adding more variable always increases the R square so we may be introducing unnecessary variables in the model. We need to see if it is worth to add z for a 1% increase in R square.) General Rule : If R square doesn't increase by much on adding variable, don't add it. So C option is correct. Great. Thanks.
- d) Model with feature x,y,z with r square statistics value of 0.88

12. Integration of $((\ln x)^2)$?

Ans : $x(\ln x)^2 - 2x \ln x + 2x + C$;

People, post questions for GS. See if you can login again with dummy credentials, take screenshots of questions!

Will integer answers in fill in the blanks get accepted if not written as x.xx? Say if I entered 6 instead of 6.00? Anyone? Nope it's clearly mentioned to write in the specified form. Most likely there will be manual evaluation of subjective questions

What was the platform used? Hackerrank

- 1) you
a)6 b)8 c)**10** d)12

2) There are 10 children in field. They want to form two teams of 5 members each. No of ways of forming distinct team
a)100 b)**126** c)378 d)106

CS: (Was there OS/Networks? : NO; Time Duration? 45 min/section Total : 135 min; Quant and ML section require less time so switch CS section to ML or Quant, to think about programming questions), (so we could use time of one section for another, is it? When you switch between section; section time pause so you can use it afterwards)

- 8 queens problems, 3 of which are already placed. How many configurations are there? How? One in which you place the first queen on white block and the other in which you place it on black block.
a)1 b)**2** c)3 d)4
- Reader - writer MCQ (Can you recall the question?)(lol. The question spanned across 1km on my screen :p) Lol. Okay. I understand.
Anyway I recommend to switch section to ml after reading coding question as timer for cs section will be paused.
- Convert to postfix notation

ML:

- One question on gradient descent
- Which of the following is affected by outliers? Mean, median, standard deviation, IQR (IQR?) Inter Quartile Range Its Mean
- Residual graph
- What to do if bias is more and less variance? [I think it was other way round less bias and more variance]
- Ways to tackle missing data
 - a) use mean of all other rows, b) do regularization, c) replace missing variable with combination of other variables. d) replace by random value of that column .
Multiple answers .

- Random Variable Transformation
- Cmp b/w mean of some sampled data out of large data to the mean of large data
- One questions on memory constraint , how will you solve?
 - a) PCA , b) remove correlated variables . c) take smaller samples . d) All of these ,PCA

Quant:

MCQs (4 Ques):

- n hats , n people , probability that no one gets his own hat
 - a) $1/2e$ b) $2/3e$ c) $1/e$ d) None of these
HOW ? (see Derangements in wiki)

$\text{Tr}(A)=2$, $\text{Tr}(A^2) =6$, $\text{Tr}(A^3) =8$, $\det(A)=?$ (Order 3, right? yes)

Ans: -2 [HOW??] (Eigen values of A are a,b,c ; $a+b+c=2$;

Eigen values of A^2 are a^2,b^2,c^2 ; $a^2+b^2+c^2=6$; similarly $a^3+b^3+c^3=8$ solve for a,b,c; $\det(A)= abc$)

One ques on integration.

Integral of $(\cos x)^m / ((\sin x)^m + (\cos x)^m)$ wrt x, Limits from 0 to $\pi/2$.

Ans: $\pi/4$

Q. A rectangular shed of size 6×4 . A goat is tied to one corner using 8 metre rope. The goat cannot enter inside the shed . There is grass outside the boundary . How much area can the cow eat. (where is cow tied too ???)

Ans . 53π

Was this explicitly mentioned the goat cannot enter the shed? I can't recall.

I guess it would be lot simpler then! (40π)

That's right, it would be a lot simpler otherwise, but they cannot expect us to make assumptions like these on this basis.

Agree with you. Can't make assumptions like these.

Fill in the blanks (6 Ques):

1. N sided die.
2. Expected number of throws such that sum exceeds n. (n is very large,n ≥ 100000) Ans: e Wrong ans is 2 ---- Please clear if correct answer is 2 or e
(fill in the blank)

2. There's a wine glass, equation: $y=x^2$. A ball of radius R is kept inside the glass, and the coordinates of the centre of the ball are given as $(0, F(R))$. $F(2) - F(\frac{1}{4}) = ?$ Ans: $15/4$ (How?) [No it's $63/16$]

[Approach : Joining the line from center $(0, F(r))$ will be normal to parabola (wine glass). Let it intersect parabola at (x, x^2) , then slope of normal will be $-\frac{1}{2}x$, so $(x^2 - F(r)) / x = -\frac{1}{2}x \Rightarrow x^2 = F(r) - \frac{1}{2}$. Now distance between $(0, F(r))$ and (x, x^2) is r

$$\Rightarrow (x^2) + (x^2 - F(r))^2 = r^2$$

$$\Rightarrow x^2 + \frac{1}{4} = r^2$$

$$\Rightarrow F(r) - \frac{1}{2} + \frac{1}{4} = r^2$$

$$\Rightarrow F(r) = r^2 + \frac{1}{4}$$

$F(2) - F(\frac{1}{4}) = 4 - \frac{1}{16} = \frac{63}{16} = 3.9375$ [Ans 3.93 in X.XX format] You're right. Hey don't we need to approximate as well? $3.9375 \rightarrow 3.94$?

3. Expected number of throws to get two consecutive heads: Ans: **6**

4. $\text{corr}(X,Y)=0.5$, $\text{corr}(X^2,Y^2)=?$ 0.25

5. One ques on eigenvalues. -2

6.

Programming:

Q - 1: Generate Nth Ugly number.

Q - 2 : x,y,z is corresponding frequency of numbers 4,5,6. print sum%2016 of all possible numbers from set {4,5,6} with given frequencies

EX. input : 1 2 0 ($x=1, y=2, z=0$)

output : sum%2016 = $(4+5+45+55+54+455+545+554)\%2016$

input : 1 1 1 ($x=1, y=1, z=1$)

output : $(4+5+6+45+46+56+54+65+64+456+465+546+564+645+654)\%2016$

(Did anyone do this question??)

<http://www.practice.geeksforgeeks.org/editorial.php?pid=1146>

Goldman Sachs@IITB/IITM [22nd OCT] (Same paper for both)

Platform: Hackerrank, 45mins x 3 sections (CS, Quant, ML);

CS:

71.Array Inversion [Given an array count the number of inversions] count manually :P
Array was 5 2 10 8 1 9 4 3 6 7 Ans: 22

2. Write a program to find number of islands made of 1s in a matrix.

<http://www.geeksforgeeks.org/find-number-of-islands/>

3. Recurrence relation for the number of words of length i that can be made from a1,a2,a3,...am alphabets which do not contains substring a1a2a3..am

$$Dp[i] = m * (Dp[i-1] - Dp[i-m])$$

I feel the answer is $Dp[i] = (m * Dp[i-1]) - Dp[i-m]$. What is the logic?

Not sure, but consider m = 2 {a,b} as alphabet, a[2] will be 3, a[3] comes out as 4, a[4] as 5 and from the given options only the one I mentioned satisfies these values.

4. Given a function

```
func(n)= return { (n)?(pow(-1,abs(n))*n):0;}
```

```
f1=f(n)
```

```
f2=f(f(n))
```

.

.

Find $f_6(6) * f_4(5)$; Ans: -30

4. Given 20% goes for higher studies. A company sw detects 76% of the one that will go for HS and 24% not. S/w also marks wrongly 1% . Find P(HS/Red Flagged) 95%

5. Full Binary Tree. Given Pre order as 6 4 3 5 8 7 9

Post order as 3 5 4 7 9 8 6

Find inorder. 3 4 5 6 7 8 9

6. Integrate $1/(1+(\tan x)^\alpha)$. Limits 0 to $\pi/2$. (α was a constant) Ans $\pi/4$.

7. Integrate $1/(x^{1/2}+x^{1/3})$, Limits 0 to 1. Ans: $5 - 6\ln 2$

8. Perfect Matching from X to Y. Which of the following is True?

N(X) neighbourhood (in the graph) of X

S(X) subset of X

Options: a) $N(X)=N(Y)$, $S(X) \leq N(S(X))$, and no odd cycles. Anyone got different Ans?
Don't remember options

Quant

1. $X \sim \text{Uni}[0,1]$ and $Y = -2\log(X)$ Find distribution of Y ?

Ans: Inverse Chi-Squared with 2 degrees of Freedom. Wouldn't it be Chi-Squared?

This should be exponential with lambda 1/2

2. Given a square. Each vertex is connected to every other vertex. An ant is located at one of the vertices. There are breadcrumbs on every other vertex. I.e. 3 breadcrumbs, each at rest of the vertices. It will go to every other vertex with equal probability ($\frac{1}{3}$). What is the expected number of moves the ant will take to eat all the breadcrumbs. Ans 8.32

Can you please explain? I think answer is 5.5. Can you write the equations please? I think 5.5 is the answer

3. 4 children, which one of the following is the most likely split:
- 2 boys, 2 girls
 - 3 same gender, one different
 - All same gender
 - All have same probability. I think D is the answer, all same probability - $(0.5)^4$

No, for 3 same gender and one different, we have 8 different chances,

making probability $8 \times (0.5)^4$

These are the 8 ways -

(BBBG, BBGB, BGGB, BBBB, GGGB, GGBG, GBGG, BGGG)

4. You have infinite discs. Size of disc is uniformly distributed in (0,1). You take discs one by the size of the previous. You stop when the size is greater than the previous disc. I.e. you have a tower of disc, in which the sizes are in decreasing order from top to bottom and place it on top of the previous only if the size of current disc is less than the previous. What is the expected height of the tower? Minimum height is 1, as there is no constraint on the first disc. **Ans: e**
5. Virat Kohli playing innings of his life. There are infinite overs. On each ball, he can score either 1, 2, 3, or 4 runs with equal probability. What is the probability that he will score a double century with a boundary? **Ans 0.4**
Can you please explain?
6. A monkey when patted, moves a random distance between 0 and 50 with equal probability (including 0 and 50). Initially at 0. What is the expected number of pats needed to make the monkey reach 50? **Ans 50.**
7. $\text{Trace}(A) = 1$, $\text{Trace}(A^2) = 21$, $\text{Trace}(A^3) = 55$, $\text{Det}(A) = ?$ **Ans 8.00.** I guess they like traces and determinants very much.
8. Random Permutation of 20 numbers, expected number of local minima. Local Minima is when a number is less than its adjacent neighbors (whether at boundary or internal element).
- 9.

ML

1. Training error 0.4. Test error 0.45. What should you do to improve the accuracy?
 - a. Increase features.
 - b. Increase folds of cross validation
 - c. Increase Data points.
 - d.
 - e. Regularization.
2. SVM, which is true:
 - a. In presence of regularization, the geometric distance of support vectors is at least 1
 - b. Number of support vectors is a function of regularization parameter
 - c. In absence of regularization, the geometric distance of support vectors is at least 1

What did other people write for this? I thought it as a,b.

3. Prior Likelihood of Gaussian? **Gaussian**.
4. MMSE. $Y = BX + E$. (Regression). E is error. MMSE of Y = Maximum Likelihood estimate of X. When is this possible?
 - a. E is normally distributed
 - b. **Y is normally distributed**
 - c. They are always same.
 - d. Large number of data points were used.
5. X takes values 0, 1, 2, 3, 4, 5, 6, 7. What is the conditional entropy $H(X/X \geq 2)$?
Ans log4 (log base 2)
6. Which of the following about boosting is true? Description was given about what boosting is.
 - i. Number of classifiers should be greater than number of features
 - ii. Each classifier should be trained in significantly different data.
 - iii. Each classifier should be a decision tree
7. Calculate t-statistic of two data: one with mean 0, variance 1. Another with mean 1, variance 1. Sample strength is 18 in both.
- 8.

QUALCOMM platform?? Hirepro

Please post the link to the test. If you can login again, kindly take screenshots.

Three sections with 20 questions each, time limit 30 mins each. First(apti/ quant).

Second Technical(OS/ networking/ CO). Third(optional CS/EE) for CS again ques based on OOPs and Input /output.

Q.OOPS from C++/JAVA? **C**

More details on Second section

Plz post for EE

Q. When is Qualcomm test in all IITS ?

litr : 27th Oct, IIT-k : 1 Nov IITG: 31 oct

IIT ROORKEE guys can you post about the test of Oracle??

Test of oracle was having 3 sections, which were divided into 2,4,5 subsections in each respectively.

1st section contained basic aptitude test, which almost all can do better.

2nd section had questions on OS,DS,DBMS,TREES,GRAPHS it was the CS section actually.

3rd section had 5 sub sections I actually cannot remember all but TEXA one was related to your ability to lookup data from table, 3 min 6 ques.

once answered cannot be changed and visited again, but you can skip through questions without answering. Test is not so difficult but you need to maintain your speed as each subsection time is fixed and it will be over then. Better consider which ones to leave. Questions

Oracle IITG: it has 3 sections ... 1st contains technical OS-8mins DBMS -5mins..OOPS--8 mins...basic data structures....no negative marking. 2nd section mcq's on big codes given on bst AVL TREES etc...time 20 mins...NExt was aptitude sections...again time is very less...4 sections in aptitude are there..Data Interpretation etc..

TI anyone??(Texas Instruments)

IITK Please edit.....waiting

There were three section Analog Digital and aptitude

30 question - analog - 45 min

30 question - digital - 45min

(above 2 section will include each and every concept of EE ranging from resistance Diode to Bjt, mosfet, control system, digital counters, schmitt trigger

PS- if you are not regular EE guy ..I mean hardcore EE guy.. Then it will be frustrating to sit through 120 min)

20 question - aptitude - 30 min

Aptitude was very easy.

Has TI visited any other iit?

Will come to IIT roorkee on 29th november.

Qualcomm Anyone?

@IIT BHU 8 NOV

3 sections - 1)aptitude 20ques 30 min 2)basic C 20ques 30min

For third section you will get 3 choices - communications, software, and electronics

Electronics - flip-flops and their conversion to excitation table, reduced table etc., 555 timer circuit,

Is there negative marking in Qualcomm test??? Yes

Is there sectional cutoff in Qualcomm test ???

orHSBC (Associate Analyst) ??? Is there any CPI cutoff ?

Questions for HSBC please (Pattern?)

IIT M or anyone from any other institute??? **No CPI cutoff at IIT BHU**

Someone post the questions

@IIG No CPI Cutoff #Any leads?

card(analyst)??ctc?? 10.79 @iitbhu **card questions anyone please**

Was it online or offline test? Can you tell which topics were covered the most?

ANY ONE FROM IIT D????

Any information about Applied Materials??? 8oct @iitbhu

There were three sections for 1 hour test - in first section there were 13 puzzles (MCQ), in second section there were 12 aptitude questions(simple MCQ) and the last section was technical having 25 questions, few of them are from electronics (around 5-6 questions), some were of material science and different streams, all mixed.

Quantitative Brokers, IITM

The following problems are aimed at assessing your technical abilities in designing and implementing using C or C++. If you are proficient in both, we prefer C++.

Question 1. You are given a csv file, which contains packets of the following structure.

<Sequence_number>,<Date-Time>

Please find the .csv input file at the following location - <https://goo.gl/GyahGR>

Assume that each packet in the csv file is streamed to your program, one packet at a time. The packets do not necessarily come in sequence. For example, a packet with a sequence number 100 can arrive before a packet with a sequence number 98. Some packets may also be missing and will not be present in the csv file. For the sake of simplicity, if a packet with the expected sequence number does not arrive in 5 packet reads, you report the packet is missing , and continue to process from the next sequence number. For example if packet with sequence number 100 is expected, then on processing the next 5 packets [which do not have the sequence number 100]you report packet 100 is missing and proceed on to parse Packet 101. Also, please be aware that the actual csv file can be arbitrarily very large (up to 50GB) and the program should be able to function correctly irrespective of the size of the file without a big memory footprint.

Your task is to write a program that sequences the packets and then writes these packets in the expected order into another csv file. You are expected to submit the following deliverables in the exact format as mentioned below.

Deliverables:

1. CSV File titled output_<YourRollNumber>.csv
2. CSV file titled statistic1_<YourRollNumber>.csv that reports the statistics [one line] in the following format.
<Number of Packets Lost>,<Number of out of order packets>,<Number of discarded Packets arriving late>

Out of order packet

If $P[i]$ arrives and if $\text{SequenceNum}(P[i]) < \text{SequenceNum}(P[j])$ for any Packet $P[j]$ that has arrived before $P[i]$, then $P[i]$ is an out of order packet.

Discarded packet arriving late

If $P[i]$ arrives and if $\text{SequenceNum}(P[i]) < \text{ExpectedSequenceNumber}$ when $P[i]$ arrives, then $P[i]$ is a discarded packet arriving late.

3. Source code titled Question1_<YourRollNumber>.cpp . Please implement all classes in the same file. If you choose to split into many source and header files, also include a Makefile and name the binary as Question1_<YourRollNumber>

Question 2. Write a program that serializes a date time in the following format:

<Month> <Day>,<Time>

For example

Apr 12, 2013 05:30:11

Please follow the below steps

1. Use any date/time with the above format as a command line argument
2. Serialize this string and save the serialized object into a binary file
3. De-serialize the same file and retrieve the same date/time string that you input on the commandline in Step 1

You are expected to submit the following deliverables in the exact format as mentioned below.

Deliverables:

1. Output of the date time in the same format as mentioned to be directed to the terminal.
2. CSV file titled statistic2_<YourRollNumber>.csv that reports the statistics [one line] in the following format
<Size of serialized object>,<Size of the de-serialized string>
3. Source code titled Question2_<YourRollNumber>.cpp.

Email your results to - rGovindarajan@quantitativebrokers.com

Headout IITH 26th Oct

4 coding questions 2hrs time. Hackerrank

- 1) Huffman encoding for alphabets and special characters are given in an array.
Decode the encoded huffman string given.
- 2) Given n strings, find the longest chain possible after removing a letter from the string. E.g.: a,b,ab,ba,abc,abcd are given as input. So longest chain is
(abcd->abc->ab->a) / (abcd->abc->ab->b)
- 3) <https://discuss.leetcode.com/topic/51175/beautiful-arrangements>

Headout@IITM

There were three questions

1st question is based .. dp

Like max path to reach from first row to last row.

2nd is following.

Magical Binary Strings

We define the following:

- A binary string is a string consisting only of 0's and/or 1's. For example, 01011, 1111, and 00 are all binary strings.
- The prefix of a string is any substring of the string that includes the beginning of the string. For example, the prefixes of 11010 are 1, 11, 110, 1101, and 11010.

We consider a non-empty binary string to be magical if the following two Conditions are true:

3. The number of 0's is equal to the number of 1's.
4. For every prefix of the binary string, the number of 1's should not be less than the number of 0's.

For example, 11010 is not magical because it doesn't have an equal number of 0's and 1's, but 110100 is magical because it satisfies both of the above conditions.

A magical string can contain multiple magical substrings. If two consecutive substrings are magical, then we can swap the substrings as long as the resulting string is still a magical string. Given a magical binary string, str, perform zero or more swap operations on its consecutive magical substrings such that the resulting string is as lexicographically large as possible. Two substrings are considered to be consecutive if the last character of the first substring occurs exactly one index before the first character of the second substring.

Complete the largestMagical function in the editor below. It has 1 parameter: a string, str. It must return a string denoting the lexicographically largest possible magical string that can be formed by performing zero or more swap operations on consecutive magical substrings of str.

y

Input Format

Locked stub code in the editor reads a single binary string, str, from stdin and passes it to the function.

Constraints

- It is guaranteed that str is a binary string of 1's and 0's only.
- $1 \leq \text{length}(\text{str}) \leq 50$
- It is guaranteed that str is a magical string.

Output Format

The function must return a string denoting the lexicographically largest magical string that can be formed from str. This is printed to stdout by locked stub code in the editor.

Sample Input 0

11011000

Sample Output 0

11100100-

Explanation 0

Given the magical string str = 11011000, we can choose two consecutive magical substrings, 1100 and 10, to swap such that the resultant string, str' = 11100100, is the lexicographically largest possible magical string possible. Thus, we return the lexicographically largest magical string that can be formed and we return 1101001100 as our answer.

HEADOUT -IIT MADRAS - 3 QUESTIONS:duration=2hr

(How to do the 1st and 3rd one) i think topological sort should work for 1
Should work (And For 3rd???)

1.(image-link)[mQYPRGhB6JN4XJYiMfWop_sgii0Z6ktxewE8UU4-c-NBfJXwsRaCQa-wlAlhttps://lh5.googleusercontent.com/WHUYTa3cJIWA5C9NnYSuZAFShOyQDNjh-ypoTO7BhnUR90q4swcm5_1xNTxnd-XXTmRCn4BzF-kZEb](https://lh5.googleusercontent.com/WHUYTa3cJIWA5C9NnYSuZAFShOyQDNjh-ypoTO7BhnUR90q4swcm5_1xNTxnd-XXTmRCn4BzF-kZEb)

2.Solution:(image link) h

to test end

Arthur Dent and Ford Prefect like to spend their free time by posing algorithm challenges to each other. Ford, proud of the Betelgeusian super intellect, poses a question to Arthur assuming that

The challenge states that there is an array A which has n cells. In each cell are between 0 and n integers, each having a value between 1 and n . We want to fill an n -element array B with single integers between 1 and n such that:

- $B[i]$ is strictly less than $A[i]$ for all values of i that appear in $A[i]$.
- If there are multiple ways to do so, we would like $B[1]$ to be as small as possible, then $B[2]$ be as small as possible and so on.
- The same integer may appear multiple times in B provided the above rule is not violated.

Arthur is utterly perplexed but he needs to solve the problem as the reputation of Earth is on line. So he needs help from a master of algorithms to solve it. Can you be that master?

Input Format:
The first line of the input contains an integer n .
Each of the next n lines starts with an integer c_i , followed by c_i integers that represent the contents of the i^{th} cell of Array A .
 n is no more than 300.
It is guaranteed that there exists at least one way to fill array B with numbers to satisfy the conditions.

Output Format:
 n space-separated numbers representing $B[1], B[2], \dots, B[n]$.

Sample Input 0:
10
4 3 7 5 10
5 1 5 10 6 4
4 7 5 9 4
0
2 9 4
2 9 4
2 5 4
6 1 3 7 10 6 4
1 4
1 9

Sample Output 0:
2 1 3 7 5 2 4 1 6 3

Explanation 0:

- $B[2]$ and $B[8] = 1$ because none of the cells of A contain the numbers 2 or 8, so no cells of B need to be less than $B[2]$ or $B[8]$.
- $B[1]$ and $B[6] = 2$ because none of the cells of A other $A[2]$ and $A[8]$ contain the numbers 1 or 6, so no only $B[2]$ and $B[8]$ need to be less than $B[1]$ or $B[6]$.
- $B[3]$ and $B[10] = 3$ because, once cells 1,2,6 and 8 of array A are excluded, none of the remaining cells contain the numbers 3 or 10, so no cells of B other than 1, 2, 6 or 8 need to be less than $B[3]$ or $B[10]$.
- and so on for $B[7] = 4$, $B[5] = 5$, $B[9] = 6$ and $B[5] = 7$.

 Headout Coding Challenge - IIT Madras, 2016

01h : 46m : 04s
to test end

0/3 Attempted

Professor X and Magneto

Charles is Erik bored of playing chess everyday, and want to try some new more interesting game. Charles being the smart one, comes up with a challenge for Erik to solve.

The challenge puts Erik on an $n \times m$ matrix named board. Each row i in board is numbered $0, 1, 2, \dots, (n-1)$, and each column j is numbered $0, 1, 2, \dots, (m-1)$. Each $a[i][j]$ cell contains an integer. Erik can play a game in one of the following two ways:

- He starts at cell $(0, p)$ and then moves through rows $1, 2, \dots, (n-1)$ in order. From cell (i, j) , he can move to any one of the following cells:
 - $(i+1, j-1)$
 - $(i+1, j)$
 - $(i+1, j+1)$
- He starts at cell $(n-1, q)$ and then moves to rows $(n-2), (n-3), \dots, 0$ in order. From cell (i, j) he can move to any one of the following cells:
 - $(i-1, j-1)$
 - $(i-1, j)$
 - $(i-1, j+1)$

Erik can only visit one cell in each row. He starts with a score of 0 and, for each cell he visits, the value of the visited cell is added to her score. The final value of score is the sum of the numbers written in each visited cell.

The challenge for Erik is to maximize the sum he can achieve.

Complete the `maxPathSum` function in your editor. It has 3 parameters:

- A 2D array of integers, `board`, describing Erik's game board.
- An integer, `p`.
- An integer, `q`.

Given the above information about Erik's game, the function must return an integer denoting the maximum possible score Erik can earn in her game.

Input Format

The locked stub code in your editor reads the following input from stdin and passes it to your function:

The first line contains an integer, `n`, denoting the number of rows in matrix board.

The second line contains an integer, `m`, denoting the number of columns in matrix board.

Each line i of the `n` subsequent lines (where $0 \leq i < n$) contains `m` space-separated integers describing the respective elements of row i in matrix board.

The next line of input contains an integer, `p`.

The last line of input contains an integer, `q`.

Constraints

- $2 \leq n, m \leq 201$
- $0 < a[i][j] < 201$, where $0 \leq i < n$ and $0 \leq j < m$
- $0 \leq p, q \leq m - 1$

Output Format

Your function must return an integer denoting the maximum possible score Erik can earn. This is printed to stdout by the locked stub code in your editor.

Sample Input

```
3
2
9 4 7
2 1 3
1 4 2
2
1
```

Sample Output

```
15
```

https://lh5.googleusercontent.com/WSz-5P9RRk07J4kGA-1pVWR8ffgMI9hK4NLF1VtECj3jBUDA1CTIuruif9EX-zeejPAKnd4Gm3B5qzS-jrOiHVbDCvEiSBFrzNWzCY32hVD1sI4YvkhRICbXOoadvXFLqem5dzontent.com/_http://ideone.com/WOjwwj

The screenshot shows a programming challenge titled "Dumbledore's Strings". The challenge description states: "Dumbledore likes to experiment with magical properties of spells. To understand more about a spell, he converts it to a binary string (consisting of 0s and 1s), and studies the patterns in the string. He calls these strings magical strings." It notes that all magical strings have the following properties:

1. The number of 0's is equal to the number of 1's.
2. For every prefix of the binary string, the number of 1's should not be less than the number of 0's.

For example, 11010 is not magical because it doesn't have an equal number of 0's and 1's, but 110101 is magical because it satisfies both of the above conditions.

Dumbledore's experiments involve trying to create new, more powerful spells. His research has shown him that a spell is more powerful if its magical string is lexicographically larger. So to enhance the powers of his spells, he comes up with following method:

A magical string can contain multiple magical substrings. If two consecutive substrings are magical, then he can swap the substrings as long as the resulting string is still a magical string. Given a magical binary string, str, he is going to perform zero or more swap operations on its consecutive magical substrings such that the resulting string is as lexicographically large as possible.

Complete the largestMagical function in the editor below. It has 1 parameter: a string, str. It must return a string denoting the lexicographically largest possible magical string that can be formed by performing zero or more swap operations on consecutive magical substrings of str.

Note :- Two substrings are considered to be consecutive if the last character of the first substring occurs exactly one index before the first character of the second substring.

Input Format
Locked stub code in the editor reads a single binary string, str, from stdin and passes it to the function.

Constraints

- It is guaranteed that str is a binary string of 1's and 0's only.
- |str| length(str) ≤ 50
- It is guaranteed that str is a magical string.

Output Format
The function must return a string denoting the lexicographically largest magical string that can be formed from str. This is printed to stdout by locked stub code in the editor.

Sample Input 0
1101100

Sample Output 0
1110100

Explanation 0
Given the magical string str = 1101100, we can choose two consecutive magical substrings, 1100 and 10, to swap such that the resultant string, str' = 1110100 is the lexicographically largest possible magical string possible. Thus, we return the value of str', which is 1110100, as our answer.

Sample Input 1
1100

Sample Output 1
1100

3.https://lh3.googleusercontent.com/AeAVEyNojDYenm1e4LqG-Cm7bUPn2307IJhfdAt_dcmdeCwgH1ERPA_TCWcag-_spdBFjvSvl9puk1pzk8pLdnQJvmh7f709vkkws6NFamTZ8YqPC6lfQrSPjXEHAKNZ55V1leEt

JP Morgan QR and Data Scientist ??? Dates??

IITk-5th Nov (Do someone know about syllabus / Pattern????

First Section: 8 MCQs in 20 min on Probability Difficulty:Extreme with time constraint

Second Section: Need to write algo in the dialog box for 3 questions & 1 PnC question.

Can someone post questions??

Different Questions for every student is MCQ section

TOWER RESEARCH

IIT K - 6 Nov Time-2:30

- Expected length of chord with (1,0) when circle is cut into three parts randomly.
- find divisors of $n(10^{16})$
- regex and pattern matching
- Strategy to bet in a game. A and B plays. If you bet X and A wins , you get x otherwise you give away X. who wins 3 out of 5 wins and tournament ends. In the end you should have +100 if A won tournament and -100+ if B won tournament. What will be your strategy?
- Reader Writer Problem
- What if window length if equal to network capacity.
- Thrashing explanation
- little endian big endian
- question on AMAT from COA ([what is this?](#))
- external factor cpu speed depends on
- cache coherency
- find LCA in constant time (order (n) preprocessing time and memory allowed)

IIT(BHU) - 6 Nov Time :- 6:30PM

??

IIT G- 6 Nov Time- 6 PM (Pen and paper)

BookMyShow, IITM, 5 Nov 2016, 12 LPA

open for which branches in IITM?? B.tech, Dual : CSE, EE, Mtech, MS : CSE

2 SQL queries-5 mins, 2 coding questions, 40 mins

1. <https://www.hackerrank.com/challenges/sherlock-and-array>
2. An array of numbers is given, we can pick any two numbers, find the sum, remove both the numbers and insert the sum. This operation is repeated while the array size is not 1. We have to minimize the total intermediate sum.
E.g. {1,5,3} is the array, then
 $1+5 = 6$, $6+3 = 9$, Total is 15
 $1+3 = 4$, $4+5 = 9$, Total is 13
So answer should be 13 exact

BookMyShow Interview questions - ??

KLA Tencor, IITM, 4 Nov 2016, 13 LPA

Platform??A:[hackerrank](#). Full screen mode?? Yes

2 coding, 15 aptitude, 1hour

Aptitude was medium to hard

Set 1

1. <http://www.geeksforgeeks.org/longest-palindromic-substring-set-2/>
2. Given an array of numbers with repetition. Print numbers according to frequency from lowest to highest.

Set 2

1. <http://www.geeksforgeeks.org/longest-palindromic-substring-set-2/>
2. Remove all anagrams from the array and print maintaining the relative order of remaining strings.

Citrix IITM - CGPA,10th & 12th criteria? Branch? MTech, BTech?

Coding question -



★ K-Difference



1 Complete the *kDifference* function in the editor below. It has two parameters:

1. An array of n positive distinct integers, a .
 2. An integer, k .
- 2 The function must return an integer denoting the total number of pairs of elements, (a_i, a_j) , in array a where $a_i + k = a_j$.

Input Format

Locked stub code in the editor reads the following input from stdin and passes it to the function:

The first line contains an integer, n , denoting the number of elements in array a .

Each line i of the n subsequent lines (where $0 \leq i < n$) contains an integer describing a_i .

The last line contains an integer, k .

Constraints

- $5 \leq n \leq 10^5$
- Each $a_i \leq 2 \times 10^9$.
- $1 \leq k \leq 10^9$

Output Format

The function must return an integer denoting the number of pairs in array a whose difference is k . This is printed to stdout by locked stub code in the editor.

2nd ques :

★ Substrings

Rohan is a librarian looking to compress his library files to accommodate more books. Rohan performs a basic frequency analysis on the text and finds large number of occurrence of the same substrings in the text. He devices a somewhat similar Run length encoding scheme to compress the file. He picks a string S and checks if a substring R exists to represent the original string as R^N , where N is some positive number. If no such repetitive suffix or prefix exists the substring R is nothing but S .

Complete the *substrings* function in your editor. It has 1 parameter:

1. A string s .

It must return an integer denoting the N , where R^N gives S .

Input Format

The locked stub code in your editor reads the following input from stdin and passes it to your function:

The first line contains a string, s .

Constraints



Citrix 2017 IIT Madras Coding #1

⌚ 20m : 11s
to test end



Output Format

Your function must return an integer denoting the N , where R^N gives S . This is printed to stdout by the locked stub code in your editor.



Sample Input 1

1

```
abcabca
```

2

Citrix cgpa??

Citrix question pattern please?

50 MCQuestions - 60 Minutes-- **areas of focus ?**

2 Coding - very easy (60 mins)

50 mcq's includes what?

IITD please share CISCO questions pattern?

AMAZON @ IITD 2 NOV (Hackerearth) (CTC ?)

Time Limit?

20 MCQ

2 Coding Questions

1. <http://www.geeksforgeeks.org/given-a-sequence-of-words-print-all-anagrams-together-set-2/>
2. <http://www.geeksforgeeks.org/minimum-cost-make-two-strings-identical/>

MCQ Type?

AMAZON @ IITBHU 4NOV (Hackerearth)

20MCQ Type? Easy and includes basic maths and programming

<http://www.geeksforgeeks.org/lexicographic-rank-of-a-string/>

<http://www.geeksforgeeks.org/josephus-problem-set-1-a-on-solution/>

Total Time-90min yes

AMAZON @ IITR 6Nov (Hackerearth)

20 MCQ (OS/DBMS/General Coding Apti/Quant)

2 Coding (Extremely easy)

<http://www.geeksforgeeks.org/reverse-words-in-a-given-string/>

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=384>

AMAZON @ IITk 7Nov (Hackerearth)

20 MCQ (OS/DBMS/General Coding Apti/Quant)

2 Coding (Extremely easy)

1. Return row,col in a spiral matrix of size n*n of elements divisible by k
2. Simple binary search problem

Amazon @ IITM 11th Nov (Hck.re)

Same pattern as other IITs

2 Coding

1. Given random array, find two elements with sum closest to zero. If multiple elements, find the one which has lowest minimum value.
<http://www.geeksforgeeks.org/two-elements-whose-sum-is-closest-to-zero/>
2. Given a 2D matrix, find the Kth element in spiral order.

HeadOut @ IITBHU 3 NOV (Hackerrank)

3 Coding questions in 2hrs

- 1. Someone add this question**
2. Given two strings find length of longest subsequence of first string which is also ``a substring of the second string.
3. <https://www.hackerrank.com/contests/w1/challenges/volleyball-match>

JP MORGAN Quant Research and Data Science:

There were two sections :

Sec 1 : 8 Probability question (20 min)

Sec 2 : 4 Coding Questions (40 min)

Type...??? Easy...?? Basic algo type..??

Capital One any IIT? - **Do you have q. paper**

IITk- 10th November

IIT Delhi (Analytics Profile) **Do you have q. Paper**

For Analytics profile, 30 DI in 35 minutes. Manageable. You just need to skip 2-3 questions in between which are more time consuming.

Was there a separate paper for ML profile???????

Did Analyst-ML profile have machine learning ques ??

All questions were on DI, 30 mins 30 questions calculators are allowed

Questions aren't tricky just maintain speed

Please give sample questions ????

Dynamic Technology Lab, IITM - **Thanks! :)**

WHY THE FUCK (ChOd) YOU DO THIS?

Who the hell has deleted the questions?

Headout, IITK, 6th november

1. You are given a string of vowels find the longest size of beautiful string. Beautiful string has only a,e,i,o,u in order but any number of times. For example aaeeiou is a beautiful string, aeou is not, aei is not. Length of string is $\leq 5 * 10^5$. You have to use DP to get all the test case passed.
2. Given number n. You are given a number line which has points from 0 to n. You are at position x and you have to reach position y. You are given a string of l and r. l indicates you can move left and r indicates you can move right. Out of that given fstring of l and r find number of unique subsequence of strings which can lead you from x to y provided you don't cross 0 or n th position in between. was not sure. May be you have to use recursion wisely to get the all the test cases passed. **Size of n..?? Can we use backtracking..?**
3. You have 4 kind of bricks 1x1x1, 1x1x2, 1x1x3, 1x1x4
Construct a wall of given height N and width M provided there should not be any vertical joint where you can cut the wall without cutting a brick. For example you can't place two stacks of 1x1x2 bricks side by side. So you should put the bricks in such a way that if someone cuts the wall he can't cut it without cutting a brick. Find the number of possible ways mod $10^9 + 7$.
<https://www.hackerrank.com/challenges/lego-blocks>

Codenation, IITM, IITR, IITD, IITH (8 Nov 2016).

Is it so that they shortlist for interview only if all questions solved? Everyone solving 2 questions from IITR were shortlisted for debug round, Same for IITM. SAmes criteria @IITH

What is the CTC??

1. CARPET

How to solve this @carpet??

Carpet

A $N \times M$ floor is given. The floor is composed of 1×1 tiles. See the figure below.

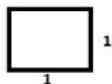


Figure: 1×1 tiles

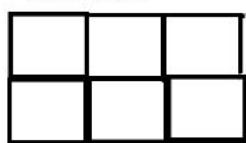


Figure: $N \times M$ floor

An $a \times b$ carpet is also given. You have to find out in how many ways you can place this carpet on the floor. Remember the carpet should completely cover a tiles.

Complete the solution function in your editor. It has 4 parameters:

1. An integer, n , the length of the floor.
2. An integer, m , the width of the floor.
3. An integer, a , the length of the carpet.
4. An integer, b , the width of the carpet.

It must return integer denoting the number ways you can place the carpet on the floor.

Input Format

The locked stub code in your editor reads the following input from `stdin` and passes it to your function:

First line contains integer N .

Second line contains integer M .

Third line contains integer a .

Fourth line contains integer b .

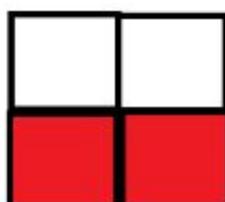
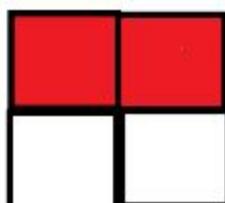
Constraints

- $1 \leq N, M \leq 1000000$
- $1 \leq a, b \leq \min(N, M)$

Explanation

Sample Case 1:

You can place the carpet in the following ways:



DP!

Little more hint to solve??

2. Walter and Boxes

There are N boxes numbered from 0 to $N - 1$ in Walter's office, inclusive. For each i , box i contains $R[i]$ red coins, $B[i]$ blue coins, and $G[i]$ green coins.

Walter wants to separate the coins by their color. In each operation, he can pick a single coin from a box and put it into another box. He considers the coins separated if no box contains coins of more than one color. Print the minimum number of operations required to separate the coins. If this is impossible, return -1.

Constraints:

$$1 \leq N \leq 100$$

$$0 \leq R[i], B[i], G[i] \leq 10^5$$

Input Format:

The first line contains a single integer N , the number of boxes.

The next N lines each contain three space separated integers, the i^{th} line containing $R[i]$, $B[i]$ and $G[i]$, respectively.

Output Format:

Print the minimal number of operations required to separate the coins. If this is impossible, return -1.

Sample Input 1:

3

1 1 1

1 1 1

1 1 1

Sample Output 1:

6

Sample Input 2:

1
5 6 8

Sample Output 2:

-1

Sample Input 3:

4
4 7 6
6 4 5
5 6 3
7 3 8

Sample Output 3:

37

Explanation 3: Boxes one and three contain blue coins. Box two contains red coins. Box four contains green coins.

^ How to do this..??

Try $O(n^3)$ Solution. Choose one bag for each R,G and B. : There can be multiple bags of green, blue and red.. Wont be $O(n^3)$, will be 3^n

$O(n)$: Sum the elements excluding the maximum from each bag. Greedy. Passed all test cases. : Your algo will not give correct answer for this tc:

3
10 1 0
10 0 1
10 0 0

Your answer will be 2 which is obv wrong.. :(

3. Colored Paths,

You are given a tree of size **N** with each vertex colored one of the **4** following colors: Red, Green, Blue or White. Find the number of different paths possible where no paths contain two consecutive nodes having the same colors.

Note:

Paths comprising of one node are not counted.

Path from (u, v) is treated same as path from (v, u) where u, v are the nodes of the tree connected by an edge

Input Format:

The first line contains a single integer **N**, denoting the number of vertices.

The next **N - 1** lines each contain two space separated integers, **a** and **b**, respectively, denoting an edge between the nodes **a** and **b**. ($a \neq b$)

The next line contains **N** space separated characters, where the **ith** character denotes the color of the **ith** node. Every character is either **W**, **R**, **B**, or **G**, denoting the colors: White, Red, Blue or Green, respectively.

Constraints:

$1 \leq N \leq 100000$

$1 \leq a, b \leq 100000$

Output Format:

Print a single integer denoting the number of different valid paths that can be formed.

Sample Input 1:

4

1 2

2 3

3 4

R R B W

Sample output 1:

3

Sample Input 2:

4

1 2

1 3

3 4

W R B G

Sample output 2:

4 (How is this 4? Shouldn't this be 6?)

Sample Input 3:

4
2 3
3 4
4 1
W R B G

Sample output 3:

6

Any solution??? USE DFS. Simple.

CodeNation Round 2 - Debug Round

This has n rescheduled due to bugs. I think they will just rotate the questions, that's it!
People, please post complete description of the problem and write what changes did you make...

Platform - Hackerrank

1 question and 20 minutes of allotted time was there. There were different questions and code language is random and restricted.

Few Questions I heard were

Permute of string - language- C Noob Level!. Just 5-6 bugs and done.

Please post detailed description of Problem, and the bugs you found.

Mutual Exclusion - language -Java 7 Just had to initialize the variable 'i' once again, that's it! I hope this question was not a trap. How did you do it?

There was problem with the hackerrank system. It was even accepting code without any changes or code with partial changes. That was not a problem with HR. Actually the problem was with Java Exceptions. If the index is out of bounds, usually C++ gives compile error. But here, in Java 7, I saw it was giving Exceptions, which made the IF condition false, which is correct. Because element cannot exist beyond the array size. And that is why it was passing all TC. If you had noticed there were a bunch of lines showing java.io.Exception at ... in the passed test cases. Let's see how they evaluate.

But the problem was with all the questions(even with c++ programs). Then we are doomed.

Please post detailed description of Problem, and the bugs you found.

Merge sort - language- C++

Please post detailed description of Problem, and the bugs you found.

NVIDIA to any IIT ? if yes, Dates ? @iitbhu 30 Nov

@IITBombay on 22 Nov

CodeNation Round 2 Round 2 - Debug Round

1. Calculate a^b .

<http://www.waytocrack.com/forum/276/codenation-debugging-round-2016-hiring>

For loop: Had to change for loop from B to 0 right?

And also $x = x * x$.

How did others do? Hey, any idea why the for loop went from 0 to 32? I just removed all that stuff and compared the parity. Also made for loop go from b to 0 in ratios of 2. Then changed + to *. Even skipped the func2() function. Gosh, made too many changes!

CodeNation: Debug Round(IIT ROORKEE)- Only 1 code to be debugged:

1. Dijkstra (I got this, it was quite easy)
2. Binary exponentiation
3. Pow code using iterating over bits instead of dividing by 2.

gg uber

UBER, IITK, 8th Nov giggity giggity giggity

- 1) You are given a number n. There are n uber cars. Each uber car has two values A and B. That means that uber car can cover points from A to B(inclusive). So given n uber cars you have to print total number of points covered. $n \leq 10^6$

Ex:-

3

-2 4

6 9

7 10

Output:

12

How to solve this??? Can someone explain the test case?? We have not given points????we have even not given time??? -2,-1,0,1,2,3,4,6,7,8,9,10 are the points covered by all cars! Just sort the intervals and count

- 2) You have an array of value[] for n planets. You are given n strings for n planets which are made of only two characters N and Y. If the character of the string is N, that means from jth planet to ith planet you have no wormhole. A wormhole means you can go from one planet to another and return back. Y means you have got a wormhole.

Initially you are in home planet. You n these two parts difhave got value[0] currency. You got to some other planet, and then your currency will be the current currency XOR –ed with the value of that planet.

You can go to a planet any number of times. Find the maximum currency.

Constraints??

- 3) You are given a set of numbers. Divide them into two parts, such that the difference between the sums of these two parts is minimized and the numbers of elements in these two parts differ by at most 1. Number of test cases = 50. Total number of elements per case <= 200. What about the constraint for ai (or size of each array element). It must be <=10000 otherwise we cannot solve it with any dp

Uber IIT k 9/11

[Toggle screen reader support](#)

IIT KGP :: powered by Hackerrank New Tab

https://www.hackerrank.com/tests/3sdg77ne3qo/questions/3cl1h65mae3

IIT KGP 01h:29m:51s to test end 0/3 Attempted Rashmi Badole

UberBall

Jenny is a big sports fan, especially uberball.

1 Rules of uberball are following :

- The match is played by 2 teams
- During one round of the game, a team scores a point, and thus increases its score by 1.
- Both team starts with 0 points each.

2 The game ends when

- One of the teams gets 25 points and another team has < 24 points (strictly less than 24).
- If the score ties at 24:24, the teams continue to play until the absolute difference between the scores is 2.

After the game has ended, the final score is given in the format X:Y, which means the first team has scored X points and the second has scored Y points, can you find the number of different sequences of getting points by teams that leads to this final score?

Complete the function `uberball` in your editor. It has 2 parameters:

An integer X.
An integer Y.

It must return the number of different possible sequences of getting those points. As the answer could be very large, return the value of result % $(10^9 + 7)$.

Input Format

The locked stub code in your editor reads the following input from `stdin` and passes it to your function:

The first line contains a single integer X.
The next line contains a single integer Y.

Constraints

$0 \leq X, Y \leq 10^9$

Output Format

9:10 AM 11/9/2016

IIT KGP :: powered by Hackerrank New Tab

https://www.hackerrank.com/tests/3sdg77ne3qo/questions/3cl1h65mae3

01h : 29m : 07s to test end

0/3 Attempted

Rashmi Badole

3
25

Sample Output 1
2925

1 Explanation 1
There are 2925 different sequences to reach the score (3,25).

2 Sample Input 2
24
17

3 Sample Output 2
0

Explanation 2
There can be no game of uberball that ends with a score of 24 : 17.

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour. [Start tour](#)

Original code Java 7

```
1 import *;
6
7 public class Solution {
8
9 */
```

Windows Taskbar: Start, Google Chrome, Microsoft Word

9:10 AM 11/9/2016

IIT KGP :: powered by Hackerrank New Tab

Document Microsoft Word

https://www.hackerrank.com/tests/3sdg77ne3qo/questions/7n82oa1p127

IIT KGP 01h : 28m : 59s to test end 0/3 Attempted Rashmi Badole

Powers of Five

John loves powers of 5 (e.g., 1, 5, 25, 125, 625, ...). He has a binary string, s , composed of 0's and 1's representing the bits of a binary number. John wants to know the minimum number of pieces, k , that he must split the string into such that each of the k pieces are binary representations of powers of 5 (with no leading zeroes). Note that this may not always be possible for every binary string s .

Complete the `getMin` function in your editor. It has 1 parameter: a string, s , consisting of 0's and/or 1's. It must return an integer denoting the value of k ; if there is no such positive integer k , return -1.

Input Format
The locked stub code in your editor reads a binary string, s , from `stdin` and passes it to your function.

Constraints

- The characters in s are $\in \{0, 1\}$.
- $1 \leq |s| \leq 50$

Output Format
Your function must return either some positive integer k (denoting the minimum number of pieces s must be cut into such that each piece corresponds with the binary representation of some power of 5), or -1 if no such k exists.

Sample Input 0

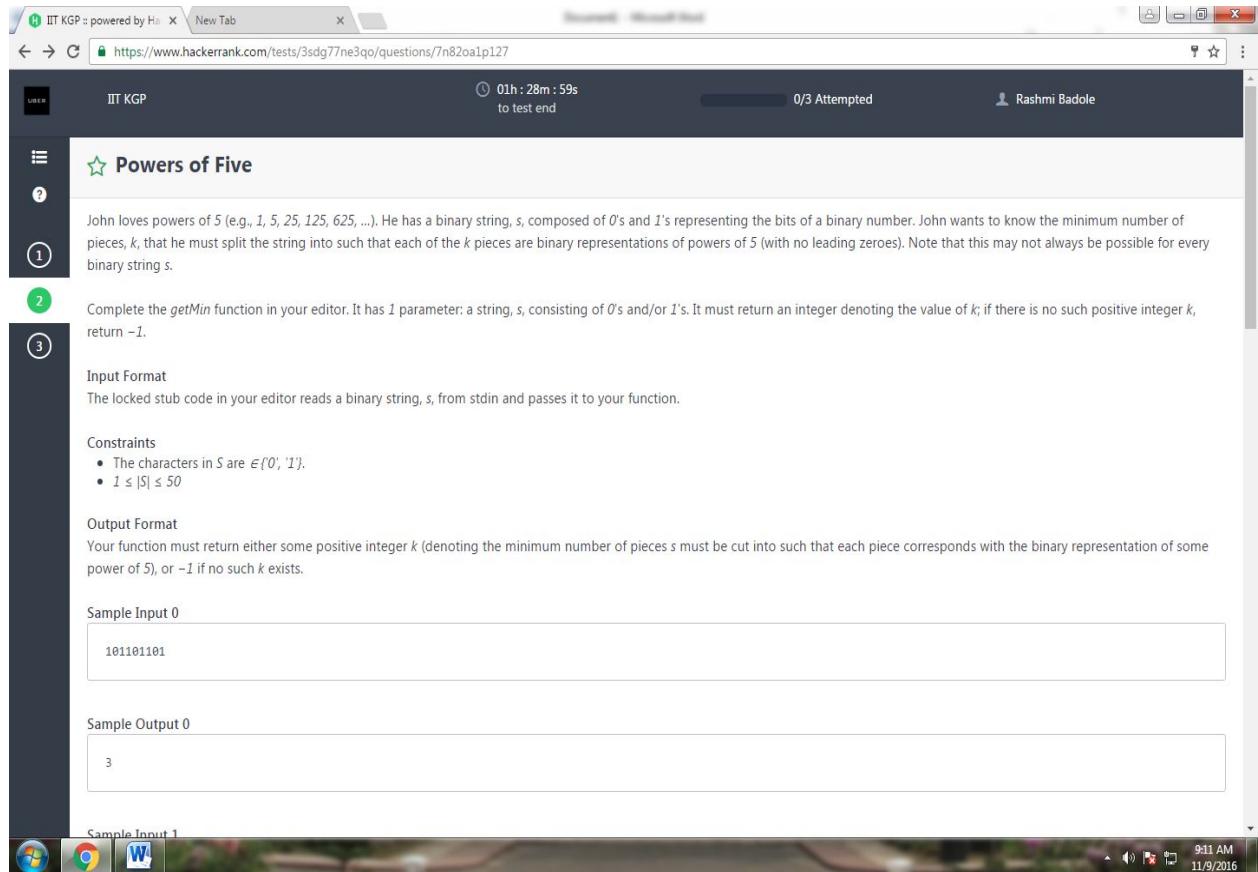
```
101101101
```

Sample Output 0

```
3
```

Sample Input 1

9:11 AM 11/9/2016



++

IIT KGP to test end 0/3 Attempted Rashmi Badole

Uber NYE Promotion

This NYE Uber wants to give a new promotion to all the hackers around the world, by setting up a game in which the rules are simple.

① AI of the game picks an integer from the list $1, 2, \dots, N$, with a probability p_i of picking i for all $1 \leq i \leq N$. Then you have K attempts to guess his number. On each guess, AI will tell you if its number is higher or lower than its guess. If you guesses AI's number correctly on any of the K guesses, the game terminates and you win. You lose otherwise. As a math pro you were able to compute all p_i 's and with all the probabilities in hand, what is the probability that you win if you play optimally?

② Input: The first line contains two space-separated integers N, K . The second line contains N space-separated numbers p_1, p_2, \dots, p_N , expressed as real numbers with 8 digits after the decimal point.

Output: A single line containing the probability that Jason wins. The output will be considered correct if its absolute error does not exceed 10^{-6} .

Constraints: $1 \leq N \leq 200000, 1 \leq K \leq 20, p_1 + p_2 + \dots + p_n = 1, p_i \geq 0$.

Scoring:

- Test cases worth 20 points will have $N \leq 40$.
- Test cases worth an additional 40 points will have $N \leq 150$.

Sample Input:
5 1
0.20000000 0.30000000 0.40000000 0.10000000 0.00000000

Sample Output:
0.40000000

Explanation: With only one attempt, Jason wins iff his first guess is correct. So to maximize the probability he wins, he guesses 3 and wins with probability $p_3 = 0.4$.

YOUR ANSWER

Windows Taskbar icons: File Explorer, Google Chrome, Microsoft Word, and others. System tray shows 9:11 AM, 11/9/2016.

Cisco@IITM, 10th Nov

Any CPI Cutoff???? No CPI cutoff.

Open for which branches in IITM? CS,EE. B.Tech/M.Tech. both.

Platform: <https://tests.mettcodenation.l.com/>

50 MCQ questions, 60 mins.

Predict output of code (Pointer, Recursion, etc.), Probability, PnC, CAT-type LR questions, Some EE concept questions like Induced Voltage in a Solenoid when change in current.
does anyone have the invitation key ?? It might not be active now.

Faadu paper. Prepare well. Time will be a constraint. No idea how will they select a Software Engineer without having them write code.

Hi Cisco uses only Basic(Not c++) language for developing most of their products and solutions. They dont check out your coding skills to that extent.

INTEL@IIT k, 11 NOV, Same IITD 13 Nov(**SHORTLIST OUT??**)

Platform: Hackerrank

25 aptitude and DI MCQ question, 60 min, No negative Marking

Most easy test that I have given till now. Questions were from Averages,

Permutations(6-7 questions), Combinations Etc

Some of the questions were directly from indiabix.com

Q1 . There are 4 defective balls in a total of 15 balls.8 balls are chosen at random without replacement. What is the probability that the 9th ball is the last defective ball?

Q2. A 4-digit number n whose last 4-digits after squaring (n^2) are equal to+ the number n.

Answer: 9376/

Q3 $p^2 = 388 + q^2$

Find number of integral solutions.

Answer: 4.

Only 2 i think $p = 98, q=96$ or $p=-98, q=-96$ // $p=+-98, q=+-96$, so ans : 4

How it came 4 ??????

WHat about Hardware Questions ???? Only aptitude for both h/w and s/w profile

AXIS Bank

Has it visited any IIT till date? Idea of questions being ask

There r 8 sections (psychometry 5 sections and 3

section(numerical(D.I)+verbal(passage questions)+logical

EXHAUSTIVE 2 hours test

Dell 12th Nov IITH (**CTC?**) 11 LPA

60 questions 75 mins all MCQ's

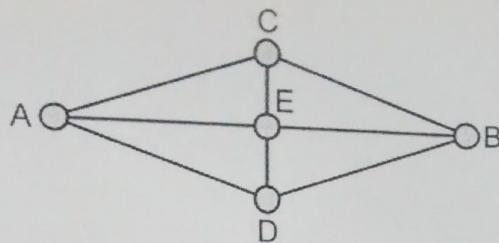
Platform: Hirepro

Q1-15: Apti

Q16-60: CS and cloud technical

Couple of cloud questions were like what is cloud washing, elastic computing, para-virtualization etc.,

CS topics included OS, DBMS, Networks, CO, and program output for C.



6. (10p) 10 investors bought 3 stocks each and any two of them bought at least one stock in common. For the stock owned by most people, what is the minimum number of people who have bought it?

7. (12p) Let's play a game as follows. Assume that the player starts from $x=0$ on the number line and can move towards $+\infty$ each time at a distance of the number rolled out from a six-face even dice with 1,2,3,4,5,6 on the faces. There are two boxes at $x=10000$ and $x=10001$ respectively.

7.1) (6p) What is the probability that the player will reach at least one of the 2 boxes?

7.2) (6p) If the two boxes are at $x=10000$ and $x=10002$ respectively what is the probability that the player will reach at least one of them?

SAMSUNG NOIDA TO ANY IIT ?? Yes. IITM. IITG too. On nov 17th 6:30pm

Dolat Capital Test ??????????

GE digital test ??????? Duration 2hrs(1hr MCQ's & 1hr coding)

IITG : Marking scheme (+1, -0.25)

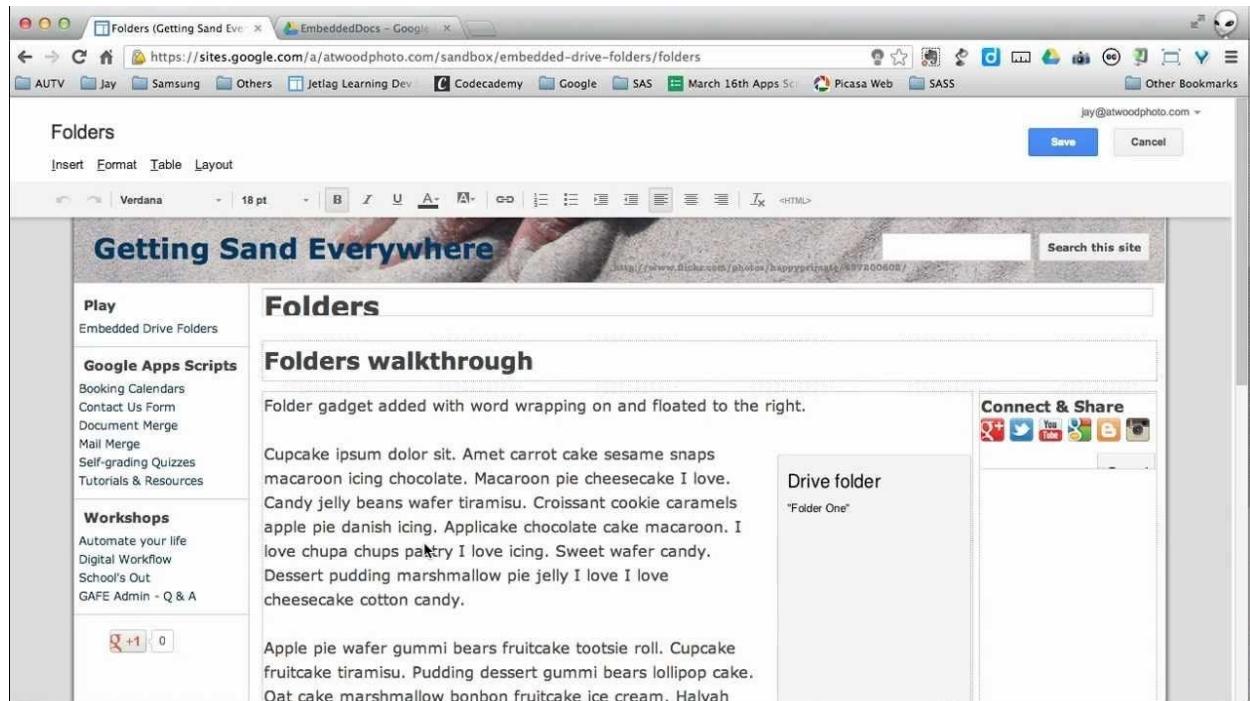
1. Easy Apti
2. Technical
3. Logical reasoning
4. Verbal

2 Coding questions from a pool of 4 questions

1. Delete m elements after n elements in linked list.
2. <http://www.geeksforgeeks.org/wildcard-pattern-matching/>
3. <http://www.geeksforgeeks.org/find-smallest-value-represented-sum-subset-given-array>. Please elaborate this question ??**Find the smallest positive integer value that cannot be represented as sum of any subset of a given array**
4. Transform an array into priority queue in the form of linked list(lower the element higher its priority.Linked List node will contain the array index number from higher priority to lower).
- 5.

TIP : Try to score as much in aptitude and technical section as coding section is of just 8 marks(5+3)

SBI ML profile test ?????? Bro, post at the beginning to make people see.



i.ytimg.com

Amex Test any IIT??

Has Bidgely visited any IIT ??

IITK guys AMEX questions??????

SmartPrix IITH 17th Nov--solutions??

Round 1: Simple aptitude and logical reasoning questions. 30 mins 20 questions with negative marking.

Round 2: Students who cleared round 1 are asked to coding questions in round 2.
Questions were same as the ones in the link. Platform was their own. 3hrs, 2 questions.

<http://www.geeksforgeeks.org/smartprix-interview-experience-set-1-on-campus/>

M. Tech. (CSE) - Please communicate.

Guys, cos are not opening for M.Techs. due to their policy of hiring only undergrads.
They say if they hire PGs they would have to pay more. Yes more than what they pay
the UGs.

Please Mention the Companies which are not Allowing M.Tech. (CSE) Students

We need to make sure if a company opens for M.Tech, it has to be in all the IITs:

IIT Bombay - AMEX, Ola (Data Science), Juniper, Samsung Delhi, Busigence, Quant One , Fractal Analytics & many more

IIT Madras - Ola, Paytm, Amada, Squarepoint, J P Morgan, Oracle International Profile, Samsung Delhi and many more

IIT Kanpur - **Tesco**, samsung delhi, paytm, juniper
Tesco Opened in IIT Roorkee, Please talk to your placement cell.

IIT Roorkee - OLA, Paytm, Rivigo, AMEX, Samsung (All Places),

IIT Hyderabad - Samsung Delhi, Sigmoid

IIT Delhi -

Sears any IIT?

ANI Technologies (OLA): Share pattern or test
IIT D- test on 29th nov

MERCEDEZ BENZ ANYONE?

V

IT

The test was pretty simple aptitude,english basic questions and technical section was mostly about trees pretty basic

The interview was very tough they were basically looking for someone with some good knowledge in machine learning don't let the Package fool you.

Any news on Cognizant Technology Solutions??

