

hii...

my name is prakash ranjan.Im from Kalyani Govt. Engg. College..
TCS come in my college on 7th jan 2011. i want share some of my
experience with all of u....

At first we have a aptitude test of 80 min.Its online.I just give u some
tricks of some problems asked in aptitude...

1. There are two water tanks A and B, A is much smaller than B. While
water fills at the rate of 1 liter every hour in A, it gets filled up
like, 10, 20, 40, 80, 160 in tank B. (At the end of first hour, B has 10
liters, second hour it has 20 liters and so on). If tank B is $\frac{1}{32}$
filled of the 21 hours, what is total duration of hours required to fill
it completely?

ans.-here part filled is $\frac{1}{32}$ then $\frac{1}{32} = \frac{1}{(2)^5}$. so ans is $21+5$.

2. 6 persons standing in queue with different age group, after two years
their average age will be 43 and seventh person joined with them. Hence
the current average age has become 45. Find the age of seventh person?

ans.-Total age of 6 persons is x hours,after two years total age of 6
persons is $x+12$

Average age of 6 persons is after two years is 43

So $(x+12)/6=43$, then $x=246$

After 7th person is added then $(246+7\text{th person age})/7=45$

7th person age = 69

3. One statement problem-in this problem if

atleast all statement are true - first part true and last part false

exactly all statement are true - second part true rest is false

atmost all statement are true - all are false.

4. The hare starts after the tortoise has covered $\frac{1}{5}$ of its distance
and that too leisurely. A hare and a tortoise have a race along a
circle of 100 yards diameter. The tortoise goes in one direction and
the. The hare and tortoise meet when the hare has covered only $\frac{1}{8}$ of
the distance. By what factor should the hare increase its speed so as to
tie the race?

in this problem atfirst find the ratio of the distance left to cover the
turtle and distance by the hare. means- $(87.5-20)/12.5=5.4$

and then $87.5/12.5=7$

and multiply these two $5.4*7=37.8$

5. alok and Bhanu play the following min-max game. Given the expression

$N = 9 + X + Y - Z$

Where X, Y and Z are variables representing single digits (0 to 9), Alok
would like to maximize N while Bhanu

would like to minimize it. Towards this end, Alok chooses a single digit
number and Bhanu substitutes this for a variable of her choice (X, Y or
Z). Alok then chooses the next value and Bhanu, the variable to
substitute the value. Finally Alok proposes the value for the remaining

variable. Assuming both play to their optimal strategies, the value of N at the end of the game would be.

ans.- in this problem there is 3 pattern 1st $X+Y-Z=11$

$X*Y-Z=18$

$X-Y-Z=2$ u just add the to the no given.

6.- For the FIFA world cup, Paul the octopus has been predicting the winner of each match with amazing success. It is rumored that in a match between 2 teams A and B, Paul picks A with the same probability as A's chances of winning. Let's assume such rumors to be true and that in a match between Ghana and Bolivia, Ghana the stronger team has a probability of $2/3$ of winning the game. What is the probability that Paul will correctly pick the winner of the Ghana-Bolivia game?

ans.- here the answer is - $2/3 * 2/3 + 1/3 * 1/3 = 5/9$

7.-After the typist writes 12 letters and addresses 12 envelopes, she inserts the letters randomly into the envelopes (1 letter per envelope). What is the probability that exactly 1 letter is inserted in an improper envelope?

ans- 0

8.- There are two boxes, one containing 10 red balls and the other containing 10 green balls. You are allowed to move the balls between the boxes so that when you choose a box at random and a ball at random from the chosen box, the probability of getting a red ball is maximized. This maximum probability is

ans.- the tricks is - $1/2 * 1 + (n-1)/(n-1+m) * 1/2$

here n is the no. which have to be max. and m is the another no. here m is green ball and n is red ball. here ans is $14/19$

9.- A and B play a game of dice between them. The dice consist of colors on their faces (instead of numbers). When the dice are thrown, A wins if both show the same color; otherwise B wins. One die has 4 red face and 2 blue faces. How many red and blue faces should the other die have if the both players have the same chances of winning?

ans.- here the ans is 3 red and 3 blue.

10.- On planet zorba, a solar blast has melted the ice caps on its equator. 8 years after the ice melts, tiny plantoids called echina start growing on the rocks. echina grows in the form of a circle and the relationship between the diameter of this circle and the age of echina is given by the formula

$d = 4 * \sqrt{t - 8}$ for $t \geq 8$

Where d represents the diameter in mm and t the number of years since the solar blast.

Jagan recorded the time of some echina at a particular spot is 24 years then what is diameter?

ans- this is the simple problem just put the value of t and find d .

11.- A circular dartboard of radius 1 foot is at a distance of 20 feet

from you. You throw a dart at it and it hits the dartboard at some point Q in the circle. What is the probability that Q is closer to the center of the circle than the periphery?

ans.- here the tricks is $(\frac{n}{2})^2/n^2$ here n is the radius of circle.

12.- 36 people $\{a_1, a_2, \dots, a_{36}\}$ meet and shake hands in a circular fashion. In other words, there are totally 36 handshakes involving the pairs, $\{a_1, a_2\}$, $\{a_2, a_3\}$, ..., $\{a_{35}, a_{36}\}$, $\{a_{36}, a_1\}$. Then size of the smallest set of people such that the rest have shaken hands with at least one person in the set is.

ans.- here the tricks is if the handshake is circular and given no is even-then $n/2$ if odd then $n/3$.

and if hand shake is non circular then $n-1$.

13.- Alice and Bob play the following coins-on-a-stack game. 20 coins are stacked one above the other. One of them is a special (gold) coin and the rest are ordinary coins. The goal is to bring the gold coin to the top by repeatedly moving the topmost coin to another position in the stack.

Alice starts and the players take turns. A turn consists of moving the coin on the top to a position i below the top coin ($0 \leq i \leq 20$). We will call this an i -move (thus a 0-move implies doing nothing). The proviso is that an i -move cannot be repeated; for example once a player makes a 2-move, on subsequent turns neither player can make a 2-move. If the gold coin happens to be on top when it's a player's turn then the player wins the game. Initially, the gold coin is the third coin from the top.

ans.- Ans is in order to win, Alice's first move should be a 1-move.(This is the final ans.)

14.- The citizens of planet nigiet are 8 fingered and have thus developed their decimal system in base 8. A certain street in nigiet contains 1000 (in base 8) buildings numbered 1 to 1000. How many 3s are used in numbering these buildings?

ans.- here the tricks is $8*8+8*8+8*8=192$ (here the base is 8) if the base is n then $n*n+n*n+n*n$.

15.- Six friends decide to share a big cake. Since all of them like the cake, they begin quarreling who gets to first cut and have a piece of the cake. One friend suggests that they have a blindfold friend choose from well shuffled set of cards numbered one to six. You check and find that this method works as it should simulating a fair throw of a die. You check by performing multiple simultaneous trials of picking the cards blindfold and throwing a die. You note that the number shown by the method of picking up a card and throwing a real world die, sums to a number between 2 and 12. Which total would be likely to appear more often – 8, 9 or 10?

a) 8 b) All are equally likely c) 9 d) 10

ans.- here the ans is 8. because 8 comes in 3 types(4+4,5+3,6+2),9 comes in 2 types(5+4,6+3),and 10 comes 2 types(5+5,6+4).

16.- How many of 14 digit numbers we can make with 1,2,3,4,5 that are divisible by 4. Repetitions allowed.

ans.- here ans is $5^{(n-1)}$ n is the 14.

17.- Which is the smallest no which divides 2880 and gives a perfect square?

a) 4 b) 9 c) 3 d) 5

ans.- $2880/5=576$ and $576=24*24$.

18.- 3 persons a,b,c were there A always says truth,B lies on Monday,tuesday,& Wednesday.but C lies on thursday,Friday & saturday .one day A said”that B & C said to A that” B said “yesterday way one of the days when I lies”,C said that”yesterday way one of the days when I lies too”.then which day was that?

ans.- the ans of all this type is Thursday.

19.-There 10 programers, type 10 lines with in 10 minutes then 60lines can type within 60 minutes. How many programmers are needed?

ans.- we have 3 question of this type the solution is based on time and work.

20.-amrith told to Anand in front of a Photo that “He is the son of my father’s son”.Find who is in the picture if amrith have no brothers and sisters.

ans.- the ans is him means amrith itself.

21.- In T.Nagar the building were numbered from 1 to 100.Then how many 4’s will be present in the numbers?

ans.- Here if the n's is given then ans is 20. n's is from 2 to 9. and if 1 is given then ans is 21.

22.- If a and b are mixed in 3:5 ration and b and c are mixed in 8:5 ration if the final mixture is 35 liters, find the amount of b?

ans.- $b/(a+b+c)*35$.

23.- If there are 30 cans out of them one is poisoned if a person tastes very little he will die within 14 hours so if there are mice to test and 24 hours to test, how many mices are required to find the poisoned can?

ans.- 6

24.- A man whose age is 45 yrs has 3 sons named John, Jill, jack. He went to a park weekly twice. He loves his sons very much. On a certain day he found the shop keepers selling different things. An apple cost 1penny, 2chocolate costs 1penny & 3 bananas cost 1 penny. He has bought equal number of apple, chocolate & banana for each son. If the total amount he invest is 7 penny then how many he has bought from each piece for his son?

ans.- 1 apple,2 chocklets,1bananas.simply 1 2 1.

25.- There are 1000 pillars for a temple. 3 friends Linda, Chelsey, Juli visited that temple. (Some unrelated stuff) Linda is taller than Chelsea and taller than 2 of 1000 pillars. Julia is shorter than Linda. Find the correct sentence?

ans.-here p>j

26.-A lady has fine gloves and hats in her closet- 18 blue, 32 red, and 25 yellow. The lights are out and it is totally dark. In spite of the darkness, she can make out the difference between a hat and a glove. She takes out an item out of the closet only if she is sure that if it is a glove. How many gloves must she take out to make sure she has a pair of each color?

ans.- Here the tricks is at first take the ball is max. and then take second max. no. and 2. here ans is 32+25+2.

27.- A scientist was researching on animal behavior in his lab. He was very interested in analyzing the behavior of bear. For some reason he travelled 1mile in north direction & reached at North Pole. There he saw a bear. He then followed the bear around 1 hr with a speed of 2km/hr in east direction. After that he travelled in south direction & reached at his lab in 2 hrs. Then what is the color of the bear?

ans.- ans is white bear.

Thats all I have attend 34 questions and I just cleared my aptitude test. now my interview is on 7th jan.

I have my interview of about 30 min.

he just asked every thing from me.

don't get tensed just give all the answer confidently.

my HR and technical question is

1.- Why TCS?

2.- Whats ur week point and strength.

3.- What the question u got from the students.

4.- Draw the circuit diagram of induction motor.

5.- What is short term and long term sheduling.

6.- What is the diff. between malti tasking and multithreading.

7.- Who is the owner of microsoft and linux.

8.- Proof the equivalant resistance of parellel circuit.

9.- Name the os which have u used in ur life.

10.-What is pointer and panildrom.write program.