Latest TCS Fresher Job Interview Paper Pattern 16, January 2011

Company Name: TCS
Type: Fresher, Job Interview, Written Test.

Hello TCS aspirants.

If TCS comes to our college, there is a great chance for you to be recruited. So don't neglect your preparation.20 days preparation is enough if you prepare seriously. You must be proficient in your technical skills. A good CV/resume increases your chance. In our college TCS gave their CV format, and I think that they do it for everyone. If you are from non computer trade (for eg. I was from Electrical Engineering) please let them know politely dat u do not know programming good enough (by chance if that was the case) but you must be well aware of yourr trade subjects and yes last but not the least practice the aptitude questions with the correct procedures. (don't memories the answers from here and there)
Enough of "gain") Now let me give the questions.

Aptitude Test:

35 questions to be solved online in 80 minutes.

1. On planet zorba, a solar blast has melted the ice caps on its equator. 8 years after the ice melts, tiny planetoids 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 = 8
Where the 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?
(a) 8
(b) 16
(c) 25
(d) 2

2. The IT giant Tirnop has recently crossed a head count of 150000 and earnings of $7 billion. As one of the forerunners in the technology front, Tirnop continues to lead the way in products and services in India. At Tirnop, all programmers are equal in every respect. They receive identical salaries and also write code at the same rate. Suppose 12 such programmers take 12 minutes to write 12 lines of code in total. How long will it take 72 programmers to write 72 lines of code in total? appeared for three times for me in one they asked me to calculate no of programmers, in another total number of minutes were asked, and in the other total number of lines of codes was asked)
(a) 6
(b) 18
(c) 72
(d) 12

3. 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?

(a) 0.75
(b)1
(c) 0.5
(d)0.25

4. 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?
(a) 0
(b) 1/41
(c) 11/12
(d) 1-1/41

5. Given 3 lines in the plane such that the points of intersection form a triangle with sides of length 20, 20 and 20, the number of points equidistant from all the 3 lines is
(a) 4
(b) 3
(c) 1
(d) 0

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.

7. 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 9/10 of winning the game. What is the probability that Paul will correctly pick the winner of the Ghana-Bolivia game?
(a) .55
(b) .81
(c) 1
(d) .82

8. Mr. Beans visited a magic shop and bought some magical marbles of different colors along with other magical items. While returning home whenever he saw a colored light, he took out marbles of similar colors and counted them. So he counted the pink colored marbles and found that he has bought 25 of them. Then he counted 14 green marbles and then 21 yellow marbles. He later counted 30 purple colored marbles with him. But when he reached a crossing, he looked at a red light and started counting red marble sand found that he had bought 23 Red marbles. As soon as he finished counting, it started raining heavily and by the time he reached home he was drenched. After reaching home he found that the red, green and yellow marbles had magically changed colors and became white, while other marbles were unchanged. It will take 1 day to regain its colors, but he needs to give at least one pair of marbles to his wife now. So how many white marbles must be choose and give to his wife so as to ensure that there is at least one pair of red, yellow and green marbles ?
(a) 46
(b) 35
(c) 29
(d) 48

9. 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
(a) 0
(b) 27
(c) 18
(d) 20
(This question appeared 2 times for me, the equation in the other was : N = 40+X*(Y-Z))

10. Given a collection of points P in the plane , a 1-set is a point in P that can be separated from the rest by a line, .i.e the point lies on one side of the line while the others lie on the other side. The number of 1-sets of P is denoted by n1(P). The minimum value of n1(P) over all configurations P of 5 points in the plane in general position (.i.e. no three points in P lie on a line) is:
(a) 3
(b) 5
(c) 2

11. 45 suspects are rounded by the police and questioned about a bank robbery. Only one of them is guilty. The suspects are made to stand in a line and each person declares that the person next to him on his right is guilty. The rightmost person is not questioned. Which of the following possibilities are true?
(a) All suspects are lying
(b) leftmost suspect is guilty

(a) A only
(b) Both A and B
(c) B only
(d) C only

12. Alice and Bob play the following coins-on-a-stack game. 50 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 = i = 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. Then
(a) In order to win, Alice’s first move should be a 0-move.
(b) In order to win, Alice’s first move should be a 1-move.
(c) Alice has no winning strategy.
(d) In order to win, Alice’s first move can be a 0-move or a 1-move.

13. A sheet of paper has statements numbered from 1 to 70. For all values of n from 1 to 70. Statement n says ' At least one of the statements on this sheet are false. 'Which statements are true and which are false?
a) The even numbered statements are true and the odd numbered are false.
b) The odd numbered statements are true and the even numbered are false.
c) The first 35 statements are true and the last 35 are false.
d) The first 35 statements are false and the last 35 are true.

14. A sheet of paper has statements numbered from 1 to 40. For all values of n from 1 to 40, statement n says: 'Exactly n of the statements on this sheet are false.' Which statements are true and which are false?
(a) The even numbered statements are true and the odd numbered statements are false.
(b) The odd numbered statements are true and the even numbered statements are false.
(c) All the statements are false.
(d) The 39th statement is true and the rest are false.

15. Ferrari S.P.A is an Italian sports car manufacturer based in Maranello, Italy. Founded by Enzo Ferrari in 1928 as Scuderia Ferrari, the company sponsored drivers and manufactured race cars before moving into production of street-legal vehicles in 1947 as Ferrari S.P.A. Throughout its history, the company has been noted for its continued participation in racing, especially in Formula One where it has employed great success .Rohit once bought a Ferrari. It could go 4 times as fast as Mohan's old Mercedes. If the speed of Mohan's Mercedes is 46 km/hr and the distance traveled by the Ferrari is 953 km, find the total time taken for Rohit to drive that distance.
(a) 20.72
(b) 5.18
(c) 238.25
(d) 6.18

16. Alok is attending a workshop 'How to do more with less' and today's theme is Working with fever digits. The speakers discuss how a lot of miraculous mathematics can be achieved if mankind (as well as womankind) had only worked with fever digits. The problem posed at the end of the workshop is 'How many 6 digit numbers can be formed using the digits 1, 2, 3, 4, 5 (but with repetition) that are divisible by 4?' Can you help Alok find the answer?
(a) 3125
(b) 4583
(c) 7124
(d) 2534

17. A hare and a tortoise have a race along a circle of 100 yards diameter. The tortoise goes in one direction and the hare in the other. The hare starts after the tortoise has covered 1/5 of its distance and that too leisurely. The hare and tortoise meet when the hare has covered only 1/8 of the distance. By what factor should the hare increase its speed so as to tie the race?
(a) 37.80
(b)8
(c) 40
(d) 5

18. 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?
(a) 50
(b) 8
(c) 60
(d) 42

19. (1/3) of a number is 5 more than the (1/6) of the same number?
(a) 5
(b) 30
(c) 18
(d) 27

20. Middle- earth is a fictional land inhabited by hobbits, elves, dwarves and men. The hobbits and elves are peaceful creatures that prefer slow, silent lives and appreciate nature and art. The dwarves and the men engage in physical games. The game is as follows. A tournament is one where out of the two teams that play a match, the one that loses get eliminated. The matches are played in different rounds, where in every round; half of the teams get eliminated from the tournament. If there are 7 rounds played in knock out tournament, how many matches were played?
(a) 255
(b) 256
(c) 79
(d) 127

21. The pace length P is the distance between the rear of two consecutive footprints. For men, the formula, n/P = 144 gives an approximate relationship between n and P where, n = number of steps per minute and P = pace length in meters. Bernard knows his pace length is 164cm. The formula applies to Bernard's walking. Calculate Bernard's walking speed in kmph.
(a) 23.62
(b) 8.78
(c) 11.39
(d) 236.16

22. 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
(a) 3/4
(b) 37/38
(c) 1/2
(d) 14/19

23. On the planet Oz, there are 8 days in a week- Sunday to Saturday and another day called Oz day. There are 36 hours in a day and each hour has 90 min while each minute has 60 sec. As on earth, the hour hand covers the dial twice every day. Find the approximate angle between the hands of a clock on Oz when the time is 12:40 am.
(a) 71
(b) 251

(c) 111
(d) 89

24. There was a question to calculate the number of spherical coins in a 4 D space. {The rest I forgot.}
Apart from these there are also many types of patterns in this website and many other resources, do practice them and also take open see same test. I was absolutely sure of the answers of 32 questions so I attended 32, and by God's grace I cleared this round with ease. Answer the questions which you are absolutely sure.
If u face any problems regarding the solutions of these type of aptitude questions.

(Both Technical and HR)

Nothing much to say about the PI. Both Technical and HR was taken in a single interview. For me it was a 1to1 interview. The interviewer was an excellent person. He just saw what I knew, he didn't waste time in knowing what I didn't knew. He looked at my skills of communication, determination to work and of course your confidence level. (They also notice about your over-confidence level. So, be careful)
And that was all out of 235 students 42 were selected and I really thank God who gave me the place where I am standing now.So guys boost up yourself and keep faith on God u will really succeed.

Wishing You All the best.