

**TCS Placement Paper August 2010:-**

**Written Test:-**

Q.1. The age of Ram and Sayam are in the ratio 5:6 and after 4 years their ratios are 7:8 then what is the present age of Sayam?

Ans. 12years (names and values may change)

Q.2. In school there are some bicycles and 4wheeler wagons.one Tuesday there are 190 wheels in the campus. How many bicycles are there?

Ans. 15

Q.3. Six friends go to pizza corner there are 2 types of pizzas. And six different flavors are there they have to select 4 flavors from 16 flavors. In how many ways we can select?

Ans. 16C4

Q.4. 3, 15, x, 51, 53,159,161. Find X

Ans. 17

Q.5. 3 friends A, B, C went for week end party to McDonald's restaurant and there they measure there weights in some order IN 7 rounds. A B C AB BC AC ABC. Final round measure is 155 kg then find the average weight of all the 7 rounds?

Ans.  $4(155)/7=31$

Q.6. The cost of making robot is divided into cost of material, cost of repairing and cost of painting in the ratio of 5:2:3. The cost used for material is 200. Find the total cost of making the robot?

Ans. 400 (just calculate it).

Q.7. A triangle is made from a rope. The sides of the triangle are A cm, B cm and C cm (I do not remember the numerical value)What will be the area of the square made from the same rope?

Ans.  $(A+B+C)/4^2$

Q. 8. What is the distance of the z-intercept from the x-intercept in the equation  $ax+by+cz=d$  (I do not remember the values of a, b, c, d).

Ans.  $\sqrt{(d/a)^2 + (d/c)^2}$

Q.9. A scientist in Antarctic region conducts research on bears came to know that bears changes according to the location .once he moves 1 mile towards north, then he moves 2 miles towards east, then 1 mile towards south. Now the color of bear he found will be in:

Ans. white

Q.10. Two pipes A and B fill at A certain rate B is filled at 10,20,40,80,. If 1/16 of B if filled in 17 hours what time it will take to get completely filled

Ans. 21

Q.11. A boy bought a roll A of 56 inches wide and 141 yards long. He also bought B of 77 inches wide of length 333yards. We don't want any details of B. Some irrelevant matter. Final question is Time taken for cutting A into 1 yard piece is 2 seconds. Time taken to cut into 141 pieces of 1 yard each is?

Ans. is  $2(141) =242$

Q.12. Person buys a horse for 15 ponds, after one year he sells it for 20 pounds. After one year, again he buys the same horse at 30 pounds and sells it for 40 pounds. What is the profit for that person?

Ans. is 15 pounds

Q.13. 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?

- (a) Linda is shorter among them
- (b) Chelsea is taller than Julia
- (c) Chelsea is shorter than Julia
- (d) Cannot determine who is taller among Chelsea and Julia

Ans. (d)

Q.14. In a family there are some boys and girls. All boys told that they are having equal no of brothers and sisters and girls told that they are having twice the no. of brothers than sisters. How many boys and girls present in a family?

Ans. is 4 boys and 3 girls

Q.15. Ram buys a cycle for 31 dollars and given a cheque of amount 35 dollars. Shop Keeper exchanged the cheque with his neighbor and gave change to Ram. After 2 days, it is known that cheque is bounced. Shop keeper paid the amount to his neighbor. The cost price of cycle is 19 dollars. What is the profit/loss for shop keeper?

Ans. is 23(cost price + change given).

Q.16. Metal strip of width 'x' cm. 2 metal strips are placed one over the other, then the combine length of 2 strips is 'y'. If 'z' strips are placed in that manner. What is the final width of that arrangement?

Ans. is  $(z-1)(y-x) + x$ .

Q.17. A game is played between 2 players and one player is declared as winner. All the winners from first round are played in second round. All the winners from second round are played in third round and so on. If 8 rounds are played to declare only one player as winner, how many players are played in first round

Ans. is 28.

Q.18. There are 3 boys A, B, C and 2 Girls D, E. D always sit right to A. Girls never sit in extreme positions and in the middle position. C always sits in the extreme positions. Who is sitting immediate right to E?

Ans. is B or C

Q.19. 49 members attended the party. In that 22 are males, 17 are females. The shake hands between males, females, male and female. Total 12 people given shake hands. How many such kinds of such shake hands are possible?

Ans. is 12C2

Q.20. Entry ticket to an exhibition ranges from 1p to 31p. You need to provide exact change at the counter. You have 31p coin. In how many parts will u divide 31p so that u will provide the exact change required and carry as less coins as possible?

- (a) 22
- (b) 31
- (c) 6
- (d) 32

Ans. is 6

Q.21. There are 2 friends Peter and Paul. Peter age is twice as old as Paul when peter was as old as Paul is now. Sum of the present ages of Peter and Paul is 35.What is the present age of Peter?

Ans. is 20

Q.22. A lady took out jacket and gloves, which are available in blue 16, yellow 40 and red 36. Power goes off, she can distinguish between gloves and jacket but not in colors. What's the possibility their she will pick up pair of gloves of each color.

Ans. very easy..

Q.23. Two bowls are taken, one contains water and another contains tea. One spoon of water is added to second bowl and mixed well, and a spoon of mixture is taken from second bowl and added to the first bowl. Which statement will hold good for the above?

Ans. second liquid in first bowl is smaller than the first mixture in second bowl)

Q.24. Rearrange and categorize the word 'TIGER'?

Ans. Animal (TIGER)

Q.25. One grandfather has three grandchildren, two of their age difference is 3, eldest child age is 3 times youngest child's age and eldest child's age is two times of sum of other two children. What is the age of eldest child?

Ans. 18

Q.26. The ticket for a journey is in the range of 1 to 63 paise. You have 63 paise in your pocket and so on. and the question is You have to change the money into coins and all denominations are available at final. You have to buy the ticket and you should have at least one coin? (not same figures)

Ans. 64 (Just add 1 to highest i.e. 63+1)

Q.27. The sum of two numbers is given and product is also given find the square of difference of two numbers..

Ans.  $(a-b)^2 = a^2 + b^2 - 2ab$ ..

Q.28. The dog and here are running, dog crosses the roads, rivers and different. Here start running after 2 hours of dog running, dog runs 30kmph in 6 hours then what is the average speed of here? (values are not same)

Ans.  $30 \times \frac{6}{4}$

Q.29. There are some chocolates. A woman can eat 3 chocolates and a man can eat 1 chocolate and a child can eat half chocolate. then 20 chocolates is divided in...

Ans. Go through the options( 5Woman, 3man, 4children).

Q.30. A water tank is filled in the way as 256,128,64,... th parts in every hour, then in how many hours the tank will filled?

Ans. 256,128,64,32,16,8,4,2,1 ( 9 hours) values are not same..

Q.31. The age of Ram and Sayam are in the ratio 5:6 and after 4 years their ratios are 7:8 then what is the present age of Sayam?

Ans. 12years (names and values may change)

Q.32.: 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. 1/8 th of the tank B is filled in 22 hours. What is the time to fill the tank fully?

- a) 26
- (b) 25
- (c) 5
- (d) 27

Ans:  $22 + \log_2 \text{base } 8 = 22 + 4 = 26$

Q.33.: 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 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 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 false.

Ans. c

Note: For this type of Questions, follow this:

- At least- 1st half are true, Last half are false
- Exactly- Last second one is true or (N-1)th Statement is true
- Almost- All are true.

Q 34. : Unnecessary data. A lady has fine gloves and hats in her closet- 18 blue- 32 red , 10 white , 25 yellow, 55 purple, 30 orange. 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 of blue, red, yellow?

- (a) 59
- (b) 8
- (c) 50
- (d) 42

Ans: a(32+25+2)

Note: For this type of questions:

Bigger+Middle+1 (Suppose 18, 32, 25 =32+25+1), If you do not find answer in options, choose the one closer those the answer you got.

Q 35. 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?

For this type question you should follow d step of basic math that will helpful you get enough time from that.

12 prog 12 line 12 min

1 prog 12 line 12\*12

1 1 12\*12/12

72 1 12\*12/(12\*72)

72 72 12\*12\*72/(12\*72)

Ans:12

Note: This question appears 3 times in our question but app is different please follow basic rule think it it is very very easy.

Q.36.: 12 people {a1, a2, ..., a12} meet and shake hands in a circular fashion. In other words, there are totally 36 handshakes involving the pairs, {a1, a2}, {a2, a3}, ..., {a11, a12}, {a12, a1}. Then size of the smallest set of people such that the rest have shaken hands with at least one person in the set is

- (a) 12
- (b) 4
- (c) 18
- (d) 11

Ans. B (N/3)

Q 37.: 10 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 innocent.
- C. leftmost suspect is guilty

- (a) A only
- (b) A or C
- (c) A or B
- (d) B only

Ans. c

Note: Remember it I don't know the logic

Q.38.: Alok and Bhanu play the following min-max game. Given the expression  $N = 15 + X*(Y - Z)$  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.  $15+18=33$

Note: For this type of questions:

$$x+y-z=11$$

$$x-y-z=2$$

$$x*(y+z)=18$$

Q.39. How many four 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) 100

(b) 125

(c) 75

(d) 85

Ans.:  $5^n-1=5^4-1=125$ , n= no of digits

Q.40 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  $n_1(P)$ . The minimum value of  $n_1(P)$  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

Ans. Will be same as no of points in the plane, IE 5