

Aptitude Questions

1. One guy has Rs. 100/- in hand. He has to buy 100 balls. One football costs Rs. 15/, One Cricket ball costs Re. 1/- and one table tennis ball costs Rs. 0.25 He spend the whole Rs. 100/- to buy the balls. How many of each balls he bought?
2. The distance between Station Atena and Station Barcena is 90 miles. A train starts from Atena towards Barcena. A bird starts at the same time from Barcena straight towards the moving train. On reaching the train, it instantaneously turns back and returns to Barcena. The bird makes these journeys from Barcena to the train and back to Barcena continuously till the train reaches Barcena. The bird finally returns to Barcena and rests. Calculate the total distance in miles the bird travels in the following two cases:
 - (a) The bird flies at 90 miles per hour and the speed of the train is 60 miles per hour.
 - (b) the bird flies at 60 miles per hour and the speed of the train is 90 miles per hour
3. A tennis championship is played on a knock-out basis, i.e., a player is out of the tournament when he loses a match.
 - (a) How many players participate in the tournament if 15 matches are totally played?
 - (b) How many matches are played in the tournament if 50 players totally participate?
4. When I add 4 times my age 4 years from now to 5 times my age 5 years from now, I get 10 times my current age. How old will I be 3 years from now?
5. A rich merchant had collected many gold coins. He did not want anybody to know about them. One day, his wife asked, "How many gold coins do we have?" After pausing a moment, he replied, "Well! If I divide the coins into two unequal numbers, then 37 times the difference between the two numbers equals the difference between the squares of the two numbers." The wife looked puzzled. Can you help the merchant's wife by finding out how many gold R
6. A set of football matches is to be organized in a "round-robin" fashion, i.e., every participating team plays a match against every other team once and only once. If 21 matches are totally played, how many teams participated?
7. Glenn and Jason each have a collection of cricket balls. Glenn said that if Jason would give him 2 of his balls they would have an equal number; but, if Glenn would give Jason 2 of his balls, Jason would have 2 times as many balls as Glenn. How many balls does Jason have?
8. Suppose 8 monkeys take 8 minutes to eat 8 bananas.
 - (a) How many minutes would it take 3 monkeys to eat 3 bananas?
 - (b) How many monkeys would it take to eat 48 bananas in 48 minutes
9. It was vacation time, and so I decided to visit my cousin's home. What a grand time we had! In the mornings, we both would go for a jog. The evenings were spent on the tennis court. Tiring as these activities were, we could manage only one per day, i.e., either we went for a jog or played tennis each day. There were days when we felt lazy and stayed home all day long. Now, there were 12 mornings when we did nothing, 18 evenings when we stayed at home, and a total of 14 days when we jogged or played tennis. For how many days did I stay at my cousin's place?
10. A 31" x 31" square metal plate needs to be fixed by a carpenter on to a wooden board. The carpenter uses nails all along the edges of the square such that there are 32

nails on each side of the square. Each nail is at the same distance from the neighboring nails. How many nails does the carpenter use?

Answer and Explanation.

1. $F + C + T = 100$ -----eq1

$15F + C + 0.25T = 100$ -----eq2

eq1=eq2 .solve to get $F=3T/56$; $F=3,T=56,C=41$

2. a) There is no need to consider their meeting pt at all.the train has been running for 90miles/(60miles/hr)=1.5hrs.bird flies till train reaches destination frm strting pt.so bird flies for1.5hrs at the vel given(90).so dist=1.5*90=135miles

b) time of train=1 hr.so dist of bird=60*1=60miles

3. (a) u don't need to sum it up.since it's a knock out only 1 person emerges winner finally.so15+1=16is answer.becos after15 matches finally we shud've 15losers and 1winner.

(b) 49:its always one less than no of pplayers as per the idea given above.so no need to check okay cos its always true.ans is 49.

4. Let x= current age

$4(x+4)+5(x+5)=10x$;so x=R 41 years

5. $37(x-y)=x^2-y^2$. u no tht $x^2-y^2=(x-y)(x+y)$.so (x-y) cancels on both sides to give $x+y=37$.so sum of unequal halves=37 which is the req answer.

6. R ans:7 teams okay.for a match u need 2 teams.suppose there r totally 'n' teams. Now uve to choose 2 teams out of 'n' teams.so answer =no of such choices=no. of possible combinations. So we've ans = nC_2 (ncombination2)=21;solve to get n=7.

Sol: $n(n-1)/2=21$. so n=7.if u don't understand c the graph below

each team plays no. of matches=no of teams ahead of it. One bar '|' represents one team.

|||||||-----7

6 5 4 3 2 1 0 -----21

last team is written as 0 matches becos this team has already played with all other teams-hence sum of matches =6+5+4+3+2+1=21 which is correct only if no of teams =7

7. R 14

1. $G+2=j-2$

2. $2(G-2)=J+2$.

solve these 2 to get

J=14

8. a). Sol:each mky takes 8 min to eat a banana

b).ans:8m=48 m=6

9. Use sets and venn diagram to solve such questions.a,b ,aub,anb etc.

12=tennis+leave

18=jog +leave

so jog-tennis=6

again jog+tennis=14.so solve and get jog=10,leave=8,tennis=4.so tot=22

10. Ans= $32*2 + 30*2=124$

1. A shopkeeper arranges his fruits in such a way that putting say either 3,or 9,or 7 apples in a row each time one apple is left. but when he puts say 11 apples in a row no apple is left.find no. of apples.

ans: take l.c.m. of earlier three nos. add 1 if divided by 11 fine else multiply by 2 add 1 divide by 11 .if not divisible keep on repeating. i got ans. in 2 steps.

2. A problem of staircase:if i start going down, having gone down 4 steps i see x coming up.i meet x in way going down.when i had still 7 steps to go down x had gone up .find no. of steps in the staircase.condition: for each of my one step down x goes up 2 steps.

ans:22

solution:

say total no. of steps x

$$2(x-11)=x$$

$$x=$$

3. Problem of merrygoround.tom on a merrygoround finds that one third of people ahead of him and three fourth of people behind him is equal to the no. of people on the merrygoround.find the no. of people on the merrygoround.

ans:13

since merry goround is circular so

$$\frac{3}{4}x + \frac{1}{3}x = x + 1.$$

4. A problem of cards .four persons sitting on a table.infront of each one of them one card is lying not having same colours on both sides.2 blue,2 red,2 green faces. each one guesses the color of unseen face of card .(guesses i don't remember) exactly 2 are lying.

the front faces of card are red,blue,green,red respectively.find the colors of unseen faces of card.

5. five persons in a conference.a & b can communicate in english.when d joins the only common language of communication is spanish. a ,b,e can talk to each other in french only.exactly 3 people know portugese. the number of languages known by different persons are 1,2,3,4,5. some other similar conditions . you have to find answers to four questions based n these facts.

6. say on a sacle of 100:

85 have phones,80 cars,75 married,70 have houses. how many minimum persons are married,have phone car and houses on a scale of 100.

7. some series given

3 10 20 27 54 61 _

ans .162

some other series

trick: find square root then add some number etc.

8. some conditions on $x < y \leq 1, xy = z$ choose which option would be incorrect.
options like: $x < y, x > z$ etc.

9. afternoon temperatures of five days are recorded. each temperature is different. multiple is 12.

ans:-1,1,2,-2,3

Infosys Interview

1. Tell us something interesting about yourself.

A: I talked about my education.

2. Now about your extra-curricular activities. Say about dancing?

A: Yes, I like dancing very much.

3. What are the things necessary for a good dancer?

A: Expression, movements, understanding the lyrics.

4. What attracts you to dancing?

A: Music, rhythm.

5. Now about Debates. What topics did you speak in debates?

A: I can't recall all. Some were related to education, some were social topics.

6. What was the topic related to education?

A: Whether literacy is necessary for Politicians.

7. If you were made the Head of Education Council of India, what changes will you bring about so as to improve the quality and efficiency of future engineers?

A: I would see that more importance is given to practical aspects. Syllabus may be modified e.g. for computer science students, instead of teaching outdated languages, those in demand in the industry should be taught. And that quality teachers should be recruited. (I said little more elaborately on that but this was the gist)

8. Be more specific. What exactly can be changed about the study pattern to ensure the efficiency?

A: Teachers should try to develop reading habits in students. In India we students don't do much of reading. Most of us only go through the syllabus. Instead of loading students with a burden of assignments, they should be given a particular topic to study and read about in a fixed time, say in one day find out about this XYZ topic. They will then go to library or search through net and in this way learn something outside the syllabus.

9. How will you ensure they are reading?

By holding tests on that topic.

10. Now about sports. What sports did you play?

11. Tell us about Arunachal Pradesh. (my college is there)

12. what r the industries that can b promoted there?
13. what r the problems u face there?
14. how will u arrange a trip 4 four days to AP?
15. Your final yr project in layman's language.did u test it ?

ptitude

1. One-third of the persons in front of me together with $\frac{3}{4}$ th of the persons behind me equals the total number of the persons in the merry go round. find the total number.
2. A bus has a maximum speed of 100 km/h. With 3 people, the bus moves at a speed of 88 km/h. With 6 people what would be the velocity if the bus' speed decreases proportionately with the number of people in the bus.
3. In an island, natives always lie and visitors always tell the truth. I met a salesman in a hotel in the island. I wanted to know whether the salesman was a native or a visitor. For that, instead of directly asking him, I asked him to ask a woman sitting in the nearby table whether she is a native or a visitor. The salesman asked the woman and said " she said she is a visitor". Is it possible to find whether the salesman was a visitor or a native? If so, what is he?
4. There are 3 teachers and 6 subjects. Some conditions like when the biology teacher was playing cards with the geography teacher,the history teacher was in class. Te1 and the geography teacher are neighbours
5. There are 4 persons Tom, Dick,Jack and Al who were fishing. Tom had more fishes than Jack. Tom and Jack together fished the same as Al and Dick. Tom and Al together had fished more than Dickand Jack. Give the list in descending order of number of fishes.(There was another condition that confirms that Dick).
6. A 1 k.m. long wire is held by n poles. If one pole is removed,the length of the gap increases by $\frac{5}{3}$ metres. What is the number of poles initially?
7. I left home early in the morning and returned back in the afternoon. The speciality that i noted was that when i returned, the minute hand was where the hour hand was in the morning and the hour hand was 2 minutes away from where the minute needle was in the morning. When did i return?
8. There was a problem from previous question papers, something like "There are 5 persons A,B,C,D,E and there are 5 langauges,Spanish,Portuguese, Italian, English and French. One person knows 5 languages, one knew 4, one knew 3, one knew 2 and one only one.A and B switch to Spanish when D comes because he doesn't know English. The most common language was spanish. Three knew spanish..
9. "There was a problem like this: A,B,C,D,E,F make one statement each.
 - A :
 - B : Today is a saturday
 - C : No, he lies. Today is not a saturday
 - D : Tomorrow is neither a saturday nor a friday

E :

F : Today is a Friday Only one statement among them was true. Then what is today???

10. A question like this: There is an island where a festival by name Wishart is held. Given, the 1st of March 1972 is a Wednesday, (I didn't have any time to completely read the problem)