

1. One guy (some name) 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? Marks: 3

2. There are Brown and Black cows. In five days four black cows and 3 brown cows give as mush as milk that four brown cows and 5 black cows give in four days. If the black cow gives 10 liters of milk per day, how

many liters of milk the Brown cow will give in one day? Marks: 4

- 3. There are following denominations of money: 1, 2, 5, 10, 20, 50, and 100 paise. Alex has as twice money as David, who has as twice as Bindya, who again has as twice money as Charles. Each has two coins in hand. Which coins Bindya has? Marks: 5
- 4. Four countries, Armenia, Bangladesh, Cairo and Denmark came in the final of a Judo championship. There are some conditions like
- a: If Cairo wins the gold and/or Denmark wins the bronze

b: if Aremania won the gold and/or Bangladesh won the bronze

hint: In Judo bronze medal is given to two countries. Marks: 5

- 5. I don't remember the question Marks: 8
- 6. There's a camel living in a desert. There is a market 1000 miles away. The camel has 3000 dates for sale. It has to take the date to the market. But for that he camel eats one date per mile. How many dates the camel can trade? Marks: 10
- 7. There are 8 stamps, 4 Red and 4 Green. There are three logicians also. One moderator sticks though stamps each on the forehead of each logician such that Download question papers from <a href="http://QuestionPaper.in">http://QuestionPaper.in</a> Question Paper is a fastest growing educational portal in India, providing educational content for CBSE, state boards and various entrance/competitive

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each of them can see all the stamps except those on his forehead and the two in moderator's pocket. Then the moderator asked each whether he knows the colors of the stamps he wears? Then the answers were:

A: "No" B: "No" C: "No" A: "No" B: "Yes"

- 1. a cube is white in color. but it is painted black on all sides. if this cube is divided into 125 smaller cubes. how many cubes will have minimum 2 sides painted black?
- 2. find the odd word out.. radar, redivider, motor...

ans: motor bcoz when reversed ..it is rotom...

- 3.there is magic dragon with 3 heads & 3 tails....u have a magic sword tht can cut 1 head,2 heads, 1 tail & 2 tails...if 1 head is cut another head grows...if 1 tail is cut 2 new tails grow...2 tails are cut a new head grows...& if 2 heads r cut nothing grows...find minimum number of swings 2 cut all heads & tails...
- 4. in a race omani, pakistani & nepali r discussing medal prospects...following was their discussion...
- 1) if nepali wins bronze, then i'm sure 2 get silver...
- 2) if omani wins gold then i may get silver...
- 3) the gold will be won by pakistani or me...

all the statements were right..find who won gold, silver & bronze?

5. there is a slowrun express tht runs btw bangalore & mumbai...it starts at 10.00pm & reaches destination @ 11.30 pm 3 days later...the train is operated on all days...if



the train starts from bangalore , how many other slowrun expresses will it meet on the way..b4 reaching mumbai....???

- 6. there r 4 paintings...
- 1) painting 1 is not a oil painting...
- 2) painting 2 has the guy gliding or on motorcycle...
- 3) painting which is on tampera & tht on acrylic r on different rows...
- 7. a few more conditions were given & u need 2 find out the picture of each painting & the material used for each of them...
- 8. professor Z waz killed by 1 of his students...A,B,C,D...following were statements given by each 1 of them....

A: if B is guilty then C is innocent...

B: if C is guilty then A is innocent...

C: if B is guilty then D has nothing 2 do with the crime....

D: i'm innocent...

1) There is a farm which contains super hens which r genetically made to lay eggs of double size hen the normal ones. But as genetic engg. is not well understood there is only 50-50% chance of super hen laying large egg. The farm is such that it keeps the hen as long as it lays large eggs and removes the hen out of the farm as soon as it lays one normal egg. The farm followed the same process for one year and counted all the eggs laid by all the super hens. At the end of the year the ratio of large eggs to the normal ones is?(4m neg-1)



2) There is bag containing balls of three colors-Red, Green and Yellow and there are three color lind people A, B and C. For A Red is invisible and every other color appears Gray. For B Green is invisible and every other color appears Gray. For A Yellow is invisible and every other color appears Gray.

They were shown the box and when asked the question what can see their replies were A: I can see two balls. B: I can see two balls. C: I can see two balls. How many balls were there in the box and of what color? (5m neg-2)

3) There is a temple on the top of the hill of height 1000mtrs. Coconuts at the base of the hill are sold at 5/- each and at the top of the hill at 50/- each. One intelligent businessman thought of buying coconuts at the base and selling them at the top. For that he appointed 2 people who can carry only 1000 coconuts at a time and takes 1 coconut for every mtr of walk.

Can he succeed in his plan. If yes how much profit he earns for a rupee of investment? (7m neg-2)

4) In the 2nd world war Japan?s war ship named J was followed by the USA war ship U which is traveling at 100kmph. By the time U was beside J and ready to launch the torpedo, the place was surrounded by fog and the army-general in U could not see anything. Taking this as a chance J hanged in direction at an angle. After 6min the general in U realized it and informed the helicopter over it to find J. After 3 minutes the helicopter replied that J turned at an angle 45 degrees and was 5km away from U at the time when the general asked for it. The intelligent general quickly turned U and successfully caught J.

How much time ?U? would have taken to catch ?J?? (8m neg-2)

Note: (You can save time by mentioning the formula).

5) Two mathematicians met after 27 years in their college. This was their conversation.



First: How are you doing?

Second: Fine I got married and have three daughters.

First: Fine. I also got married 2 years after the college. How old are your daughters?

Second: Well, Product of their ages is 72 and their sum is equal to that house

number (It was not mentioned).

First: Wait, I am still counting.

Second: Sorry, youngest of them has just started walking.

First: Is it! Youngest of mine is also of the same age.

How old are the three daughters? (12m neg-3)

6)A boy got bored of the class and started walking on a hall which contained 1024 lockers in a row. He first opened locker 1 and alternatively left one and opened one from thereon. When he reached the end he turned back and opened the first closed locker and from thereon continued what he did previously. He did this back and fro method till he opened the last locker.

What is the number of the last locker he opened? (12m neg-3)

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?

$$SOL: -F + C + T = 100eq1$$

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



## 2. Bird and the train:

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 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 from starting point. so bird flies for 1.5 hrs at the velocity given (90). so dist=1.5 \*90=135 miles
- (b) the bird flies at 60 miles per hour and the speed of the train is 90 miles per hour time of train=1hr.so distance of bird=60\*1=60miles
- 3. A tennis championship is played on a knockout 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? sol:- C u don't need to sum it up. since it's a knock out only 1 person emerges winner finally.so15+1=16is answer. because after15 matches finally we should've 15 losers and 1winner.
- (b) How many matches are played in the tournament if 50 players totally participate?



sol:- 49.its always one less then number of players as per the idea i have given above. so no need to check okay because its always true. ans is 49.

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?

sol:- Let x= current age

4(x+4)+5(x+5)=10x; so x=0 41 years

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 coins.

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

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?

ans:7 teams . for a match u need 2 teams. suppose there r totally 'n 'teams. Now u have to choose 2 teams out of 'n' teams. so answer =no of such choices=no. of possible combinations. So we've ans = nC2(ncombination2)=21; solve to get n=7.

Sol: n(n1)/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.

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last team is written as 0 matches because 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. 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?

sol:-1. G+2=j2

2. 2(G2)=J+2.

solve these 2 to get J=14

- 8. Suppose 8 monkeys take 8 minutes to eat 8 bananas.
- (a) How many minutes would it take 3 monkeys to eat 3 bananas?

Sol: each monkey takes 8 min to eat a banana

(b) How many monkeys would it take to eat 48 bananas in 48 minutes

ans:8m=48 m=6

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



sol:-12=tennis+leave

18=jog +leave

so jogtennis=6

again jog+tennis=14.so solve and get

jog=10,leave=8,tennis=4.so tot=22

10. The Carpenter and the Nails:- 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?

Ans:- 32\*2 + 30\*2=124

11. Man Wrinkle spent one fourth of his life as a boy, one eighth as a youth, and one half as an active man. If Man Wrinkle spent 8 years as an old man, then how many years did he spend as an active man?

sol:-(1/4)y+(1/8)y+(1/2)y=p; where y =tot life time. yp=8.since p=(14/16)y we've y=64 active age=32

12. A farmer has C chickens. A sack of feed comes for 9 days. As the feed cost is increasing the farmer sells some chickens and retains 12 chicken. If he reduces the feed quantity by 10% .Then he observes that the feed comes for 30 days. What is C?

sol: C chickens can b fed for 9 days. so C chick can eat 1/9 in 1 day. so 1 chick can eat (1/9C)in one day. after his reduction one chick gets to eat only 90% of what it used to eat in one day. so new feed value=0.9\*(1/9C)for 1day.but now he has only 12 chicks. that means as per new rule feed is suitable for 12 chicks for 30 days. i.e. 0.9\*(1/9C)\*12\*30=1. solve to get C=36

Ans:36



13. To be 10 min earlier means car has been driven for 10 min less then usual i.e 5 min in forward journey and 5min in backward journey. normally car reaches station at 6pm. today since it has to drive only 5 min less it reaches at 5:55.since he started to walk at 5pm.has been walking till 5:55 since that's when he sees the car. so 55 min