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English Placement Papers 1. He brought him _____ with great difficulty.

- A. about
- B. in
- C. up
- D. over

Answer: Option C

2. VITUPERATE

- A. abuse
- B. rebuke
- C. praise
- D. retort

Answer: Option C

3. The young, thin boy surprised his wrestling opponent with his _____ strength. A. fraudulent

- B. wiry
- C. frolicsome

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D. pretentious

Answer: Option B

4. An extremely deep crack or opening in the ground A. Chasm

B. Aperture

C. Ditch

D. Pit

Answer: Option A

5. Modern A. ity

B. ty

C. ize

D. ite

Answer: Option A

6. He took to (a) / reading Times (b) / for better knowledge (c) / of the facts
(d) / No error (e)

- A. he took to
- B. reading times
- C. for better knowledge D. of the facts

Answer: Option B

7. Likelihood A. liken
- B. likely
 - C. like

D. likeable

Answer: Option C

8. With Justine's _____ nature and passion for art, she would make an excellent tour guide for the museum.

- A. volatile B. congenial C. servile
- D. fledgling

Answer: Option B

9. The train had left. A. past perfect
B. past continuous C. past future

D. simple present

Answer: Option A

10. You will have finished this work by tomorrow. A. This work will be finished by tomorrow.

B. This work will finished tomorrow.

C. This work will have been finished by tomorrow. D. This work will have been finished tomorrow. Answer: Option C

11. He may be innocent. I do not know. a) I doubt -----

b) I do not -----

c) That he is -----

A. Only A

B. Only B

C. Only C

D. A & B

Answer: Option B

12. CONVIVAL A. prodigal

B. serious

C. disloyal

D. hostile E. friendly

Answer: Option E

13. If he is averse _____ recommending my name, he should not hesitate to admit it.

A. about B. for

C. to

D. against

1. Jake left point A for point B. 2 hours and 15 minutes later, Paul left A for B and arrived at B at the same time as Jake. Had both of them started simultaneously from A and B travelling towards each other, they would have met in 120 minutes. How much time (hours) did it take for the slower one to travel from A to B if the ratio of speeds of the faster to slower is 3:1?

Ans: x x

Sol: It seems there is some problem with this question.

Let the distance between A and B is D km. As Paul is faster, take the speeds of Jake and Paul are s and $3s$ kmph.

As the speeds are in the ratio of 1 : 3, times taken by them should be 3 : 1. Take the times taken by them are $3x$, x . But We know that $3x - x = 2$ hour 15 min. So $2x = 9/4$ hours, $x = 9/8$ hours. So time taken by the slower one (Jake) takes $3x$ time = $3 \times 9/8 = 27/8$ hours = 202.5 minutes.

(Or)

Take Jake speed = j and Paul = p kmph.

Now given that $Dj - Dp = 2$ hr 15 min = 214 hrs = $9/4$ hrs

Also both of them together covered D distance in 2 hours. So $Dj + Dp = 2$ Adding these two equations will give us $2Dj = 94 + 2 = 174 = 4$ hours 15 minutes.

So in the above problem, some part is redundant.

2. A completes a work in 2 days, B in 4 days, C in 9 and D in 18 days. They form group of two such that difference is maximum between them to complete the work. What is difference in the number of days they complete that work?

Ans: $14/3$ days.

Sol: If C and D form a pair and A and B form a pair the difference is maximum. Now C and D together can complete the work = $9 \times 189 + 18 = 6$ days.

A and B together can complete the work = $2 \times 42 + 4 = 4/3$ days.

Difference = $6 - 4/3 = 14/3$ days.

3. How many 4 digit numbers contain number 2. a. 3170

b. 3172

c. 3174

d. 3168

Ans: D

Sol:

Total number of 4 digit numbers are 9000 (between 1000 and 9999).

We find the numbers without any two in them. So total numbers are $8 \times 9 \times 9 \times 9 = 5832$

So numbers with number two in them = $9000 - 5832 = 3168$

4. How many three digit numbers abc are formed where at least two of the three digits are same.

Ans: 252

Sol:

Total 3 digit numbers = $9 \times 10 \times 10 = 900$

Total number of 3 digit numbers without repetition = $9 \times 9 \times 8 = 648$

So number of three digit numbers with at least one digit repeats = $900 - 648 = 252$

5. How many kgs of wheat costing Rs.24/- per kg must be mixed with 30 kgs of wheat costing Rs.18.40/- per kg so that 15% profit can be obtained by selling the mixture at Rs.23/- per kg? **Ans: 12**

Sol:

S.P. of 1 kg mixture = Rs.23. Gain = 15%.

C.P. of 1 kg mixture = Rs. $[(100/115) \times 23] = \text{Rs.}20$

Let the quantity of wheat costing Rs.24 is x kgs.

Using weighted average rule = $x \times 24 + 30 \times 18.4x + 30 = 20$ Solving we get $x = 12$

6. What is the next number of the following sequence 7, 14, 55, 110,?

Ans: 121

Sol:

Next number = Previous number + Reverse of previous number So

$7, 7+7=14, 14+41 = 55, 55+55 = 110, 110+011 = 121$

7. How many numbers are divisible by 4 between 1 to 100

Ans: 24

Sol: There are 25 numbers which are divisible by 4 till 100. ($100/4 = 25$). But we should not consider 100 as we are asked to find the numbers between 1 to 100 which are divisible by 4. So answer is 24.

8. $(11111011)_2$

= $()_8$

Ans: 373

Sol: $11111011_2 = (251)_{10} = (373)_8$ or

You can group 3 binary digits from right hand side and write their equivalent octal form.

9. There are 1000 junior and 800 senior students in a class. And there are 60 sibling pairs where each pair has 1 junior and 1 senior. One student is chosen from senior and 1 from junior randomly. What is the probability that the two selected students are from a sibling pair?

Ans: 714 / 80000

Sol:

Junior students = 1000

Senior students = 800

60 sibling pair = $2 \times 60 = 120$ student

One student chosen from senior = $800C_1$
= 800

One student chosen from junior = $1000C_1 = 1000$

Therefore, one student chosen from senior and one student chosen from junior $n(s) = 800 \times 1000 = 800000$

Two selected students are from a sibling pair $n(E) = 120C_2 = 7140$

therefore, $P(E) = n(E) / n(S) = 7140 / 800000 = 714 / 80000$

10. $161?85?65?89 = 100$, then use + or - in place of ? and take + as m, - as n then find value of m-n.

Ans: -1

Sol:

$161 - 85 - 65 + 89 = 100$

so m's = 1, n's = 2 $\Rightarrow (m - n) = -1$

11. In a cycle race there are 5 persons named as J, K, L, M, N participated for 5 positions so that in how many number of ways can M finishes always before N?

Ans: 60

Sol: Total number of ways in which 5 persons can finish is $5! = 120$ (there are no ties)

Now in half of these ways M can finish before N.

12. Rahul took a part in cycling game where $\frac{1}{5}$ ahead of him and $\frac{5}{6}$ behind him excluding him. Then total number of participants are

Ans: 31

Sol:

Let the total no of participants including Rahul = x Excluding rahul= $(x-1)$

$$15(x-1)+56(x-1) = x$$

$$31x - 31 = 30x$$

Total no. of participants $x = 31$

13. If a refrigerator contains 12 cans such that 7 blue cans and 5 red cans. In how many ways can we remove 8 cans so that atleast 1 blue can and 1 red can remains in the refrigerator.

Ans:

Sol:

Possible ways to draw 8 balls from the refrigerator which contains atleast 1 blue and 1 red can after the drawing are (6,2) (5,3) (4,4).

$$\text{For } (6, 2) = \Rightarrow {}^7C_6 {}^5C_2 \Rightarrow 7 \cdot 10 = 70$$

$$\text{For } (5, 3) = \Rightarrow {}^7C_5 {}^5C_3 \Rightarrow 21 \cdot 10 = 210$$

$$\text{For } (4, 4) = \Rightarrow {}^7C_4 {}^5C_4 \Rightarrow 35 \cdot 5 = 175 \text{ So Total ways} = 70 + 210 + 175 = 455$$

14. There are 16 people, they divide into four groups, now from those four groups select a team of three members, such that no two members in the team should belong to same group.

Ans: 256

Sol:

We can select any three of the 4 groups in 4C_3 ways. Now from each of these groups we can select 1 person in 4 ways. So total ways
 $= 4 \times 4 \times 4 \times 4 = 256$

15. How many five digit numbers are there such that two left most digits are even and remaining are odd and digit 4 should not be repeated.

Ans: 2375

Sol:

We have

4 cases of first digit {2,4,6,8}

5 cases of second digit {0,2,4,6,8}

But 44 is one case we have to omit. So total ways for leftmost two digits are $4 \times 5 - 1 =$

19 5 cases of third digit {1,3,5,7,9}

5 cases of fourth digit {1,3,5,7,9}

5 cases of fifth digit {1,3,5,7,9}

So total ways = $19 \times 5 \times 5 \times 5 = 2375$

16. 7 people have to be selected from 12 men and 3 women, Such that no two women can come together. In how many ways we can select them?

Ans: 2772

Sol:

We can select only one woman, and remaining 6 from men. So ${}^{12}C_6 \times {}^3C_1$
 $= 2772$

17. Tennis players take part in a tournament. Every player plays twice with each of his opponents. How many games are to be played?

Ans: 210

Sol:

We can select two teams out of 15 in ${}^{15}C_2$ ways. So each team plays with other team once. Now to play two games, we have to conduct ${}^{15}C_2 \times 2 = 210$ games.

18. Find the unit digit of product of the prime number up to 50 .

Ans: 0

Sol: No need to write all the primes upto 50. There are two primes 2, 5 gives unit digit of 0. So the entire product has unit digit 0.

19. If $[x^{(1/3)}] - [x^{(1/9)}] = 60$ then find the value of x.

Ans: 49

Sol:

Let $t = x^{1/9}$

So,

$$t^3 - t = 60$$

Therefore, $(t-1) \times t \times (t+1) = 60 = 3 \times 4 \times 5$. therefore, $t = x^{1/9} = 4$.

hence, $x = 4^9$

20. A family X went for a vacation. Unfortunately it rained for 13 days when they were there.

But whenever it rained in the mornings, they had clear afternoons and vice versa. In all they enjoyed 11 mornings and 12 afternoons. How many days did they stay there totally?

Ans: 18

Sol:

Total they enjoyed on 11 mornings and 12 afternoons = 23 half days It rained for 13 days. So 13 half days.

So total days = $(13 + 23) / 2 = 18$

1. 125 small but identical cubes are put together to form a large cube. This large cube is now painted on all six faces.

(i) How many of the smaller cubes have no face painted at all.

(a) 27

(b) 64 (c) 8 (d) 36

(ii) How many of the smaller cubes have exactly three faces painted? (a) 98

(b) 100

(c) 96

(d) 95

(iii) How many of the smaller cubes have atleast one side painted? (a) 4

(b) 8

(c) 9

(d) 27

Sol:

Side of larger cube is $\sqrt[3]{125} = 5$

I) No face painted will be in the interior part of the cube. Interior part will be a cube of side $(5 - 2) = 3$.

Hence no. of cubes with no face painted will be $3^3 = 27$

Ans : (a) 27

II) Cubes with 3 faces painted will be the vertices of the cube. There will be 8 such cubes

Ans : 8 [Wrong options... 3rd options should come here]

III) Atleast 1 face painted \Rightarrow
greater than or equal to 1

Cube with 1 face painted + cube with 2 side painted + cube with 3 side painted

Cube with 1 face painted will be the outermost layer of larger cube but not on the edges.

i.e. $(5-2)^2$

= 9 cubes on 1 side

So totally $6 \times$

$9 = 54$ cubes

Cube with 2 face painted ll be edges of the larger cube but

$(5 - 2) = 3$.

Since a cube has 12 edges, totally $12 \times$

$3 = 36$ cubes

Cube with 3 sides painted = 8 cubes

Totally $54 + 36 + 8 = 98$ cubes

Ans : 98

2. Directions : Study the following information and answer the question given below:

In a certain code, the symbols for 0 (zero) is @ and for 1 is \$. There are no other symbols for all other number greater than one. The numbers greater than 1 are to be written only by using the two symbols given above. The value of the symbol for 1 doubles itself every time it shifts one place to the left. Study the following examples:

'0' is written as @, '1' is written as #, '2' is written as #, '@' '3' is written as # #

'4' is written as #@@ and so on

=> Which of the following represents 14?

(a) @@@@

(b) ###@

(c) ##@@

(d) ##@#

Sol:

Answer (b) ###@

The given pattern is nothing but binary. In binary $2 = 10$; $3 = 11$

Thus $14 = 1110$

So $14 = ###@$

3. $7528 : 5306 :: 4673 : ?$ a) 2367

b) 2451

c) 2531

d) 2489

Sol:

Answer is 2451.

As there is a difference of 2222. $7528 - 2222 = 5306$.

So $4673 - 2222 = 2451$

4. $x^2 - y^2 = 16$ and xy

= 15 so find out $x + y$?

Sol:

$$x^2 - y^2$$

$$= 16 \quad (x+y)(x-y) = 16$$

So 16 comes in following table $1 \times$

$16, 2 \times 8, 4 \times$

4

Using 2×8 equation $x+y=8$

and $x-y=2$

So $x = 5$ or 3 and $y = 3$ or 5 So answer is 8 .

5. Census population of a district in 1981 was 4.54 Lakhs, while in year 2001 it was 7.44 Lakhs. What was the estimated mid-year population of that district in year 2009.

Sol:

1981 \Rightarrow

4.54 2001 \Rightarrow

7.44

Difference (year) = 20 Difference (population) = 2.9 So population per year = $\frac{2.9}{20} = 0.145$

2009 \Rightarrow

$x = ?$

Hence $x = 7.44 + 8 \times 0.145 = 8.6$ Lakhs

6. Based on the statement in the question, mark the most logical pair of statement that follow "Either he will shout or they will fire".

(1) He shouted.

(2) He did not shout.

(3) They fired

(4) They did not fire

(a) 1,4

(b) 2,3

(c) 4,1

Sol:

Either or condition is true atleast one of the condition should happen. Answer is option C because according to the given sentence.

"Either he will shout or they will fire"

One of the two must happen whether he shouting or they firing.

If one of them happens, the other will not happen.

So if he did not shout then the firing should happen,so they fired.

If they did not fire it means the first thing has happened, so he shouted.

7. Gautham passes through seven lane to reach his school. He finds that YELLOW lane is between his house and KAMA lane. The third lane from his school is APPLE lane. PEACOCK lane is immediately before the PARK lane. He passes ASH lane at the end. KAMA lane is between YELLOW lane and PEACOCK lane. The sixth lane from his house is RAO lane.

I. How many lane are there between KAMA lane and RAO lane ? a) one

b) two

c) three

d) four

II. After passing the park lane how many lane does Gautham cross to reach the school

? a) 4

b) 3

c) 2

d) 1

III. After passing the YELLOW lane how many lane does Gautham cross to reach the school ? a) 4

b) 6

c) 2

d) 1

IV. Which lane is between PARK lane and RAO lane ? a) YELLOW lane

b) KAMA lane

c) APPLE lane

d) PEACOCK lane

V. If the house of Gautham, each lane and his school are equidistant and he takes 2 min to pass one lane then how long will he take to reach school from his house ?

a) 18 min

b) 16 min

c) 14 min

d) 12 min

Sol:

1. 3 Lanes between KAMA lane and RAO lane

2. Answer is 2 because after passing the PARK lane Gautham cross 3 lane to reach the school. 3. After passing the YELLOW lane Gautham cross 6 lane to reach the school.

4. APPLE lane 5. 16 minutes

8. Find the maximum value of n such that $50!$ is perfectly divisible by 2520^n .

Sol:

$$2520 = 2^3 \times 3^2 \times 5 \times 7$$

Here 7 is the Highest prime So find the number of 7's in $50!$ only. Number of 7's in $50! = [50/7] + [50/7^2]$

$$= 7 + 1 = 8$$

For $n(\max) = 8$, $50!$ is perfectly divisible by 2520^8 .

9. Find the no of ways in which 6 toffees can be distributed over 5 different people namely A,B,C,D,E.

Sol:

We assume that all the toffees are similar. Then Number of ways are ${}^{(n+r-1)}C_{r-1}$

. Here $A+B+C+D+E=6$

Here $r = 5, n = 6$

Number of ways = ${}^{6+5-1}C_{5-1} = {}^{10}C_4 = 210$.

If all the toffees are different, then each toffee can be distributed to any of the five. So total ways are 5^6

.

10. A train covered a distance at a uniform speed .if the train had been 6 km/hr faster it would have been 4 hour less than schedule time and if the train were slower by 6 km/hr it would have been 6 hrs more.find the distance.

Sol:

Let t be the usual time taken by the train to cover the distance Let d be the distance, s be the usual speed

Usual time taken \rightarrow

$$d/s = t \Rightarrow d = t \times s$$

$$d/s+6$$

$$=t-4$$

$$t \times s/s+6$$

$$=t-4$$

$$ts = ts + 6t - 4s - 24 \quad 6t - 4s - 24 = 0 \rightarrow$$

(1)

$$d/(s - 6) = t + 6$$

$$ts = ts - 6t + 6s - 36$$

$$- 6t + 6s - 36 = 0 \rightarrow$$

(2)

Solving (1) and (2), we get $s = 30$ km/h

$$t = 24 \text{ hrs}$$

$$d = t \times s$$

$$d = 30 \times 24$$

$$= 720 \text{ km}$$

Ans : 720 km

11. A girl leaves from her home. She first walks 30 metres in North-west direction and then 30 metres in South-west direction. Next, she walks 30 metres in South-east direction. Finally, she turns towards her house. In which direction is she moving?

Option

A) North-east B) North-west C) South-east D) South-west E) None of these Sol:

A.North-east

12. There are two containers on a table. A and B. A is half full of wine, while B, which is twice A's size, is one quarter full of wine. Both containers are filled with water and the contents are poured into a third container C. What portion of container C's mixture is wine?

Sol:

Let the size of container A is "x" then B's size will be "2x"

A is half full of wine $\Rightarrow \frac{x}{2}$

So remaining $\frac{x}{2}$

of A contains water

B is quarter full of wine $\Rightarrow \frac{2x}{4} = \frac{x}{2}$

So remaining $\Rightarrow 2x - \frac{x}{2} = \frac{3x}{2}$

$\frac{3x}{2}$

of B contains water

Totally C has A's content + B's Content = $\frac{x}{2} + \frac{x}{2} = x$ Wine portion in C = $\frac{x}{x + \frac{3x}{2} + \frac{3x}{2}} = \frac{x}{4x} = \frac{1}{4}$

of "A" + $\frac{x}{2}$

of "B"

$\frac{1}{4}$ portion of wine

Water portion in C = $\frac{3x}{2}$ of "A" + $\frac{3x}{2}$

of "B"

$\Rightarrow \frac{3x}{2} + \frac{3x}{2} = 3x$

portion of water

So portion of wine in C is $x3x=13$

portion of wine

if $1/3$ expressed in % 13×100

= 33.33%

Ans : 33.33% of wine

13. Four persons A,B,C,D were there. All were of different weights. All Four gave a statement. Among the four statements only the person who is lightest in weight of all others gave a true statement.

A Says : B is heavier than D.

B Says : A is heavier than C.

C Says : I am heavier than D.

D Says : C is heavier than B.

Find the lightest and List the persons in ascending order according to their weights ?

Sol:

A says $B > D$ B says $A > C$

C says $C > D$

D says $C > B$

\Rightarrow since the person with lightest weight tells the truth

C lies (If C tells the truth, then C is not the lightest and then C lies)

$D > C$ is the true statement.

So D is also not the lightest person and D lies.

$B > C$

So from A and B only one is telling the truth and that is not B because $B > C$, so B is not the lightest

A is the lightest

Ans: A

14. There is well of depth 30 m and frog is at bottom of the well. He jumps 3 m in one day and falls back 2 m in the same day. How many days will it take for the frog to come out of the well? Sol:

28 days

Frog jumps 3 m in day & falls back 2 m at night

so, frog will be $3 - 2 = 1$ m up in a day.

Thus, in 27 days it will be 27 m up

On 28th day it will be at top i.e $27 + 3 = 30$ m & will not fall down.

15. Find the next term in the given series 47, 94, 71, 142, 119, 238, _ ?

a.331

b.360

c.320

d.340

Sol:

Ans : 215, 430

(47, 94) (71, 142) (119, 238) (X, Y) 47×2

= 94

$94 - 23 = 71$

71×2

= 142

$142 - 23 = 119$

119×2

= 238

$238 - 23 = 215$

215×2

= 430

So the next 2 terms are 215 , 430

16. A train leaves Meerut at 5 a.m. and reaches Delhi at 9 a.m. Another train leaves Delhi at 7 a.m. and reaches Meerut at 10.30 a.m. At what time do the two trains travel in order to cross each other ?

Sol:

Let the total distance be x

So the speed of 1st train is $x/4$ and 2nd train $x/3.5$

In 2 hours 1st train covers half of the total distance . So remaining is only half of the total distance (ie $x/2$). Let t be the time taken

$$t \times x/4 + t \times x/3.5 = x/2$$

$$t = 1415$$

i.e. 56 min

i.e. Total time taken = 2 hrs + 56 min

Time they cross each other is 7:56 am (5+2.56) Answer 7:56 am

17. 'A' and 'B' started a business in partnership investing Rs 20000/- and Rs 15000/- respectively. After six months 'C' jointed them with Rs 20000/-. What will be B's share in the total profit of Rs 25000/- earned at the end of two years from the starting of the business?

Sol:

$$A:B:C = (20000 \times 24):(15000 \times 24):(20000 \times 18) = 4 : 3 : 3$$

$$B's \text{ Share} = \frac{3 \times 25000}{4+3+3} = 7500$$

18. b,x,e,u,h,_?

Sol:

We know that $a = 1, b = 2, \dots, z = 26$

Convert the alphabets into numbers. we get number series as follows

2, 24, 5, 21, 8

In these (2,5,8) belong to one group as they have common difference of 3

(24,21,_?) these are of one group as they have difference of -3 .

So the next number is $21 - 3 = 18$.

If we convert 18 into alphabet it is "r".

Since $r = 18$.

19. 3,5,11,29,83,245, _ ?

Sol:

We have to find the differences between the given numbers and then by applying that number with 3 we can get the result

$$5-3=2$$

See here the result is 2, then multiply it with 3

$$11 - 5 = 6$$

$$29 - 11 = 18$$

$$83 - 29 = 54$$

$$245 - 83 = 162$$

$$731 - 245 = 486 \quad 5-3=2$$

$$11 - 5 = 6 \quad (2 \times 3)$$

$$29 - 11 = 18 \quad (6 \times 3)$$

$$83 - 29 = 54 \quad (18 \times 3)$$

$$245 - 83 = 162 \quad (54 \times 3$$

)

$$731 - 245 = 486 \quad (162 \times 3)$$

20. A Jar contains 18 balls. 3 blue balls are removed from the jar and not replaced. Now the probability of getting a blue ball is $\frac{1}{5}$ then how many blue balls jar contains initially ?

Sol:

$$x/15 = 1/5$$

$$x=3$$

$$3 + 3 \text{ (removed 3 blue balls)} = 6$$

1. 4, 6, 10, 14, 22, 26, 34, 38, 46, _ ? what is next term in the series.

Sol:

Divide each number by 2. Then we get 2, 3, 5, 7, 11, 13,, 23. This is a prime number series. So next number will be $2 \times 29 = 58$

2. y, _?, q, m, i 1. w

2. u

3. t

4. l

Sol:

Difference of 3 is in between two alphabets $i + 3 = m$ (j,k,l)

$m + 3 = q$ (n,o,p)

$q + 3 = u$ (r,s,t)

u is the answer.

3. What is the next number in the series 3,7,13,19....

Sol:

Prime numbers from 3 onwards are 3, 5, 7, 11, 13, 17, 19, 23, 29 . . . Write alternate primes numbers starting from 3.

3, 7, 13, 19, 29

Answer is 29

4. Data Sufficiency Question:

Is w a Whole number?

Statement 1: $3w$ is an Odd number. Statement 2: $2w$ is an Even number Sol:

Statement 2 is enough to solve this

$3w$ is Odd means w may be Odd or Fraction like $5/3$ we can not guess what w is from the first statement.

$2w$ is Even.

So must and should w either Odd or Even

i.e which is whole number.

No Fraction will give Even output.

5. Joe's age, Joe's sister's age and Joe's father's age sums up to a century. When son is as old as his father, Joe's sister will be twice as old as now. When Joe is as old as his father then his father is twice as old as when his sister was as old as her father. Age of her father ?

Sol:

$$\text{Joe} + \text{sister} + \text{father} = 100$$

After x years let us consider Joe's age is equal to his father $\text{Joe} + x = \text{father}$

Therefore,

$$\text{sister} + x = 2 \times \text{sister}$$

$$\text{sister} = x$$

$\text{Joe} + \text{sister} = \text{father}$ Therefore,

$$2x$$

$$\text{father} = 100 \text{ Hence, Father} = 50$$

6. The sum of series represented as $1/(1 \times 5) + 1/(5 \times 9) + 1/(9 \times 13) + \dots + 1/(221 \times 225)$ is

a) $28/221$

b) $56/221$

c) $56/225$

d) None of these

Sol:

$$1 \times 5$$

$$+ 5 \times 9 + 9 \times 13 + \dots + 221 \times 225$$

$$= 14 \times$$

$$[(5-1)1 \times 5 + (9-5)5 \times 9 + (13-9)9 \times 13 + \dots + (225-221)221 \times 225]$$

$$= 14 \times [(1-5) + (5-9) + (9-13) + \dots + (221-225)] = 14 \times (1-225)$$

$$= 14 \times 224$$

$$= 56225$$

7. What are the next three terms in the series 3, 6, 7, 12, 13, 18, 19, 24, _ _ _?

Sol:

This is a mixed series. 6, 12, 18, 24, . . . form a series. Adding 1 to 6, 12, 18, forms another series. So next three terms are 25, 30, 31.

8. What is the next number in the series. a, b, d, h, _?

Sol:

a=1

b=2

d=4

h=8

This is a 2^n

series starting with $n = 0, 1, 2, \dots$

2^4

= 16 which is p. Ans = p

9. Find the letter that comes in the place of " - " b, _, d, d, e, d, f, g, d.

Sol:

[b c] d [d e] d [f g] d [h i] d....

The series follow above manner. Answer will be c.

10. The number of zeros at the end of the product of all prime numbers between 1 and 1111 is?

Sol:

Prime numbers between 1 & 1111 are 2,3,5,7,11,...

There is no other prime no. ending with 5 as unit digit, except one '5' $2 \times 5 = 10$ gives only one zero in the product of all prime numbers So, number of zeros at the end of the product = 1

11. A train goes from stations A to B. One day there is a technical problem at the very beginning of the journey & hence the train travels at $\frac{3}{5}$ of its original speed and so it arrives 2 hours late. Had the problem occurred after 50 miles had been covered, the train would have arrived 40 min earlier(i.e., only $120-40 = 80$ min late). What is the distance between the 2 stations?

Sol:

For 1 mile the train is late by $40 / 50$ min or $\frac{4}{5}$ minutes. Or it is late by 1 minute for every $\frac{5}{4}$ miles. For 120 minutes late it has to travel $120 \times \frac{5}{4} = 150$ miles.

12. Due to some defect in our elevator, I was climbing down the staircase. I'd climbed down just 7 steps when I saw a man on the ground floor. Continuing to walk down, I greeted the man and I was surprised to see that when I was yet to get down 4 steps to reach the ground floor, the man had already finished climbing the staircase. He perhaps climbed up 2 steps for every 1 of mine. How many steps did the staircase have?

Sol:

Let us consider x be the number of steps

$$7 + x + 4 = 2x$$

As old man takes 2 steps for every one steps he takes and he has to complete 4 steps,

$$\text{So } x = 11 \text{ and total steps} = 2x = 22$$

39. A card board of size $34 \times$

14 has to be attached to a wooden box and a total of 35 pins are to be used on the each side of the card box. find the total number of pins used.

Sol:

Total 35 pins are there and 4 sides of card board.

$$\text{So } 35 \times 4 = 140$$

Now in the rectangle 4 vertices have 4 pins which is common to the sides.

$$\text{So } 140 - 4 = 136.$$

13. In the Garbar Jhala, Ahmadabad a shopkeeper first raises the price of Jewellery by $x\%$ then he decreases the new price by $x\%$. After one such up down cycle, the price of

a Jewellery decreased by Rs. 21025. After a second updown cycle the jewellery was sold for Rs. 484416. What was the original price of the jewellery.

Sol:

Let the original price be "p":

I cycle:

Up by x% means new price is p

+ $px100$

Down by x% on current price means new price is $(p$

+ $px100) - (p + px100) \times x100$

Price after one up down cycle is $(p - 21025)$

Thus, $(p$

+ $px100) - (p + px100) \times x100$

= $(p - 21025) = p' \text{----- (1)}$

II cycle:

Up by x% means new price is p'

+ $p'x100$

Down by x% on current price means new price is

$(p'$

+ $p'x100) - (p' + p'x100) \times x100$

Price after second up down cycle is 484416.

Thus, $(p'$

+ $p'x100) - (p' + p'x100) \times x100$

= 484416 ----- (2)

Putting value of $p' = p - 20125$ in equation (2) and dividing (1) & (2) to eliminate x. We get a quadratic equation in p:

$p^2 - 526466p - (21025)^2 = 0$

The equation has real roots in the form 525625, 841.

14. Three football teams are there. Given below is the group table. Fill in the x's P -

Played

W - Won

L - Lost

D - Draw

F - Goals For

A - Goals Against

PWLDFA A22xxx1 B2xx124 C2xxx37 Sol:

PWLDFA A2 2 0 0 7 1 B2 0 1 1 2 4

C 201 13 7

Total goals for = Total goals against

$$1+4+7=3+2+x$$

$$x=7$$

A has played two and won 2 therefore lost = 0, draw = 0

B has played 2 but one is draw as A has 0 draw, it should be against C i.e C draw = 1

C played 2 draw = 1 therefore lost = 1 because A has won both matches played against them. So we can conclude that each team has played a match with every other team.

15. A dog takes 4 leaps for every 5 leaps of hare but 3 leaps of dog is equal to 4 leaps of hare compare speed?

Sol:

Dog and hare speeds according to the number of leaps = 4 : 5

But their leap lengths are in the ratio = 4 : 3 ($3 \times D = 4 \times H$)

Multiplying number of leaps and leap lengths we get their speeds as = $4 \times 4 : 5 \times 3 = 16 : 15$ Answer = 16 : 15

16. A bird keeper has got P pigeons, M mynas and S sparrows. The keeper goes for lunch leaving his assistant to watch the birds. Suppose $p = 10$, $m = 5$, $s = 8$ when the bird keeper comes back, the assistant informs the x birds have escaped. The bird keeper exclaims: "Oh no! All my sparrows are gone."

How many birds flew away?

When the bird keeper comes back, the assistant told him that x birds have escaped.

The keeper realized that atleast 2 sparrows have escaped.

What is minimum no of birds that can escape?

Sol:

This question can be solved using the pigeonhole principle.

I guess the answer for the first question is 23 ($10 + 5 + 8$).

Since if all the birds are escaped, then only he can be sure that all sparrows are gone.

And for the second one, answer is 17 (10 p + 5 m + 2 s).

If 17 birds escaped then best case such that least number of sparrows escaped will be like 10 pigeon, 5 myna and 2 sparrows escaped.

17. 3,4,7,10,13,16,19,22, . . . Find 10th term in series

Sol:

3

$$3 \times 1 = 3 + 1 = 4 \quad 3 \times 2 = 6 + 1 = 7 \quad 3 \times 3$$

$$= 9 + 1 = 10 \quad 3 \times 4$$

$$= 12 + 1 = 13 \quad 3 \times 5$$

$$= 15 + 1 = 16$$

$$3 \times 6$$

$$= 18 + 1 = 19 \quad 3 \times 7$$

$$= 21 + 1 = 22 \quad 3 \times 8$$

$$= 24 + 1 = 25 \quad 3 \times 9$$

$$= 27 + 1 = 28 \quad \text{10th term} = 28$$

18. a,d,i,p,? what is next term a) q

b) r

c) s

d) t

Sol:

$$a = 1 \times 1$$

$$d = 2 \times 2$$

$$i = 3 \times 3$$

$$p = 4 \times 4 \quad \text{Next will be } 5 \times 5$$

$$= 25 = Y$$

19. Marbles are to be distributed. Ann gets 1, Mary gets 2, Rose gets 3 and Lisa gets 4. John Brown gets as much as his sister. Tim Smith gets 2 times as much as his sister. Neil Johnson gets 3 times as much as his sister. Sam Paul gets 4 times as much as his sister. Find the surnames of Ann, Mary, Rose and Lisa ?

Sol:

Ann's brother is Neil John ($1 \times 3 = 3$).

Mary's brother Sam Paul ($2 \times 4 = 8$).

Rose's brother John Brown ($3 \times 1 = 3$).

Lisa's Brother is Tim Smith ($4 \times 2 = 8$).

$$1 + 2 + 3 + 4 + 3 + 8 + 3 + 8 = 32$$

20. A shop has 4 shelf, 3 wardrobes, 2 chairs and 7 tables for sell. You have to buy a. 1 shelf

b. 1 wardrobe

c. either 1 chair or 1 table

How many selection can be made?

Sol:

The way to answer this question

$${}^4C_1 \times {}^3C_1 \times {}^2C_1 + {}^4C_1 \times {}^3C_1 \times {}^7C_1 = 108$$

1. $XZY + XYZ = YZX$.

Find the three digits

Sol:

2nd column, $Z + Y = Z$ shows a carry so, $Z + Y + 1 = 10 + Z \Rightarrow$

$Y = 9$

1st column, $X + X + 1 = 9 \Rightarrow$

$X = 4$ so, $Z = 5$ $459 + 495 = 954$

$X = 4, Y = 9, Z = 5$

2. In a 5 digit number, 3 pairs of sum is 11 each. last digit is 3 times first one, 3rd digit is 3 less than 2nd, 4th digit is 4 more than the second one. Find the number.

Sol:

1st Digit \Rightarrow

2nd Digit \Rightarrow

3rd Digit $\Rightarrow (b - 3)$

4th digit $\Rightarrow (b + 4)$

5th Digit \Rightarrow

3a

So the number is : $(a)(b)(b - 3)(b + 4)(3a)$

Now, Let's analyze 1st and the 5th digit :

Possible combinations -

1-3

2-6

3-9

(Since 4 will yield 12 which is obviously more than 2 digits) Now Let's analyze 2nd,3rd and 4th Digits :

Possible Values of 2nd Digit i.e 'b' is :

5,4,3

As, $(b - 3) > 0$ i.e 3rd Digit and $(b + 4)$ $1 + 3 + 7 = 11$ Similarly, 24186 for $4 - 1 - 8$ and $6 + 4 + 1 = 11$

3rd Combination $5 - 2 - 9$ will get no possible match. Hence, 2 solutions : 13073 and 24186

If Repetitions not allowed then Ans should be 24186

3. GOOD is coded as 164 then BAD as 21. If UGLY coded as 260 then JUMP?

Sol:

$$G O O D = 7 + 15 + 15 + 4 = 41 \quad 41 \times 4 = 164$$

$$\text{Similarly } BAD = 2 + 1 + 4 = 7$$

7x 3

$$U G L Y = 21 + 7 + 12 + 25 = 65 \quad 65 \times 4$$

Similarly,

$$J U M P = 10 + 21 + 13 + 16 = 60 \quad 60 \times 4 = 240$$

4. Supposing a clock takes 7 seconds to strike 7. How long will it take to strike 10?

Sol:

7 strike of a clock have 6 intervals

While 10 strikes have 9 intervals.

Required time = (76×9)

) seconds = $10 \frac{1}{2}$ seconds.

Because time is only moving ahead ! so when we say between 1 to 2 hours, that means we assume only 1 hours not 2 hours.

5. An escalator is descending at constant speed. A walks down and takes 50 steps to reach the bottom. B runs down and takes 90 steps in the same time as A takes 10 steps. How many steps are visible when the escalator is not operating?

Sol:

Lets suppose that A walks down 1 step / min and

escalator moves n steps/ min

It is given that A takes 50 steps to reach the bottom

In the same time escalator would have covered $50n$ steps

So total steps on escalator is $50 + 50n$.

Again it is given that B takes 90 steps to reach the bottom and time taken by him for this is equal to time taken by A to cover 10 steps i.e 10 minutes. So in this 10 min escalator would have covered $10n$ steps. So total steps on escalator is $90 + 10n$

Again equating $50 + 50n = 90 + 10n$ we get $n = 1$ Hence total number of steps on escalator is 100.

6. Albert and Fernandes have two leg swimming race. Both start from opposite ends of the pool. On the first leg, the boys pass each other at 18 m from the deep end of the pool. During the second leg they pass at 10 m from the shallow end of the pool. Both go at constant speed but one of them is faster. Each boy rests for 4 seconds at the end of the first leg. What is the length of the pool?

Sol:

The solution is :Let the length of swimming pool be : D

let their speed be x and y . So according to question the fast swimmer (let x) would start from shallow end.

Thus

Let they first meet after time: t_1

$$x \times t_1 = D - 18$$

(1)

$$y \times t_1 = 18$$

(2)

(2) / (1) we get

$$yx = 18(D - 18)$$

--- (3)

Let t_2 be the time after which they meet 2nd time (the 4 sec delay is cancelled as both wait for 4 sec)

So

$$x \times t_2 = 2D - 10$$

---- (4)

(as x travelled one length complete to deep end + length from deep end to 10 m before shallow end)

$$4y \times t_2 = D + 10$$

----- (5)

(as y travelled one length complete to shallow end + 10 m from shallow end)

(5) / (4) we get

$$yx = (D + 10)(2D - 10)$$

----- (6)

from (3) and (6)

$$18(D - 18) = (D + 10)(2D - 10)$$

solving we get

$$D \times (D - 44) = 0$$

Since D cannot be zero

So D = 44 m answer.

7. 16, 36, 100, 324, _ ?

Find the next term.

Sol:

This sequence can be written as a sequence of squares of numbers as... 42

, 6², 10², 18²

The differences between the successive numbers are in geometric progression which is of

2,4,8,?

2_1

, $2_2, 2_3, 2_4$

The next number = $(18+16)_2$

= 1156

8. How many ways can one arrange the word EDUCATION such that relative positions of vowels and consonants remains same?

Sol:

The word EDUCATION is a 9 letter word with none of letters repeating

The vowels occupy 3,5,7th & 8th position in the word & remaining five positions are occupied by consonants

As the relative position of the vowels & consonants in any arrangement should remain the same as in the word EDUCATION

The four vowels can be arranged in 3rd,5th,7th & 8th position in $4!$ ways.

similarly the five consonants can be arranged in 1st ,2nd ,4th, 6th & 9th position in $5!$ ways Hence the total number of ways = $5! \times 4! = 120 \times 24 = 2880$

9. There are 8 digits and 5 alphabets. In how many ways can you form an alphanumeric word using 3 digits and 2 alphabets?

Sol:

Select 3 digits from 8 digits i. e. 8C_3

ways

And also select 2 alphabets from 5 alphabets i.e., 5C_2

ways

Now to form a alphanumeric word of 5 characters we have to arrange the 5 selected digits. So the answer is 8C_3

$\times {}^5C_2 \times$

$5! = 43200$

10. In an Octagon the number of possible diagonals are?

Sol:

Formula : Number of diagonals for n sided regular polygon = $\frac{n(n-3)}{2}$ For Octagon n = 8

Number of diagonals = $\frac{8(8-3)}{2}$

$$= \frac{8 \times 5}{2} = 20$$

11. What is the next number of the following sequence 7, 14, 55, 110, _ ?

Sol:

In that sequence first number is 7

$$7 + 7 = 14$$

$$14 + 41 = 55$$

$$55 + 55 = 110$$

$$110 + 11 = 121$$

=121 Next number in that sequence = 121

12. How many numbers are divisible by 4 between 1 to 100

Sol:

Sequence of numbers that are divisible by 4 between 1 to 100 are as follows 4,8,12,16, 20, 24, 28, 32, 36, 40, 44, 48, 52, 56, 60, 64, 68, 72, 76, 80, 84, 88, 92, 96

The series forms an Arithmetic Progression with

First number = a = 4

Common difference, d = 4

Last number = l = 96

Number of terms = n

Formula for last number in A.P. $l = a + (n - 1) \times d$

$$96 = 4 + (n - 1) \times 4$$

$$n = 24$$

13. 5 cars are to be parked in 5 parking slots. there are 3 red cars, 1 blue car and 1 green car. How many ways the car can be parked?

Sol:

Total ways to park the cars having same color = $5!$

But according to question ,there are 3 red cars,so no. of ways for parking 3 red cars= $3!$ and both blue & green in 1 ways

so, $5!1! \times 3! \times 1!$

= 20 ways

Hence correct answer is 20 ways.

14. 12 persons can complete the work in 18 days. after working for 6 days, 4 more persons added to complete the work fast. in how many more days they will complete the work?

Sol:

Total work $12 \times 18 = 216$ units

After 6 days, work finished $6 \times 12 = 72$ units Remaining work $216 - 72 = 144$ units

Remaining days= $144/(12+4)$

Answer is 9 days

15. 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?

Sol:

Consider number of teams be n

nth has to with $(n - 1)$ matches

$(n - 1)$ th team has to play $(n - 2)$ matches,since every

participating team plays a match against every other team once and only once.

Sequence folilows as

$(n - 1), (n - 2), (n - 3) \dots, 1$

Formula for summation(x) for n terms = $\frac{n(n+1)}{2}$

But we have $(n - 1)$ terms so formula becomes $\frac{n(n-1)}{2}$

Equating formula to 21

$\frac{n^2}{2}$

$-\frac{n}{2}$

$$-42=0$$

Factors = 7, -6

Number of teams = 7

16. Next term in series 3, 32, 405, _

Sol:

First term $3 \times 1^2 = 3$ Second term $4 \times 2^3 = 32$ Third term $5 \times 3^4 = 405$ Fourth term $6 \times 4^5 = 6144$

17. A cube is divided into 729 identical cubelets. Each cut is made parallel to some surface of the cube. But before doing that the cube is colored with green color on one set of adjacent faces, red on the other set of adjacent faces, blue on the third set. So, how many cubelets are there which are painted with exactly one color?

Sol:

Total cubes created are 729

So a plane of big cube has 9×9 cubes

Out of that $(n - 2) \times (n - 2) = 7 \times 7 = 49$ are painted only one side and a cube has six sides = $6 \times 49 = 294$

18. Find the radius of the circle inscribed in a triangle ABC. Triangle ABC is a right-angled isosceles triangle with the hypotenuse as $62\sqrt{2}$ cm.

Sol:

Since hypotenuse is $62\sqrt{2}$

cm.

Sides are 6 cm each as it is an isosceles triangle.

Now, if we have an inscribed circle the property is the point where the circle touches the sides are exactly $\frac{2}{3}$ rd of the length of sides, i.e, $\frac{2}{3} \times 6 = 4$ cm.

Now, if you drop 2 radii on the sides of triangle then they act as perpendiculars on sides. So, it forms a small square of $(6 - 4) = 2$ cm each side.

Thus, radius of the circle is 2 cm.

19. How many boys are there in the class if the number of boys in the class is 8 more than the number of girls in the class, which is five times the difference between the number of girls and boys in the class.

Sol:

Let number of boys = b Number of girls = g then
given

$$b = 8 + g = 5(b - g) \quad b = 5 \times 8 \\ b = 40$$

$$[b - g = 8 \text{ from given equation}]$$

20. If dolly works hard then she can get A grade

1. If dolly does not work hard then she can get A grade
2. If dolly gets an A grade then she must have worked hard
3. If dolly does not gets an A grade then she must not have worked hard
4. Dolly wishes to get A grad

1. The hour hand lies between 3 and 4. Tthe difference between hour and minute hand is 50 degree. What are the two possible timings?

Sol:

The angle between the hour hand and minute hand at a given time H:MM is given by

$$\theta = 30 \times H - 211 \times MM$$

The time after H hours, hour hand and minute hand are at $MM = |211 \times ((30 \times H) \pm \theta)|$

given $H = 3$, $MM = 50$

Substituting the above values in the formula

$$\theta = 8011, 28011$$

2. Jack and Jill went up and down a hill. They started from the bottom and Jack met Jill again 20 miles from the top while returning. Jack completed the race 1 min ahead of Jill. If the hill is 440 miles high and their speed while down journey is 1.5 times the up journey. How long it took for the Jack to complete the race ?

Sol:

Assume that height of the hill is 440 miles.

Let speed of Jack when going up = x miles/minute

and speed of Jill when going up = y miles/minute

Then speed of Jack when going down = $1.5x$ miles/minute

and speed of Jill when going up = $1.5y$ miles/minute

Case 1 :

Jack met Jill 20 miles from the top. So Jill travelled $440 - 20 = 420$ miles.

Time taken for Jack to travel 440 miles up and 20 miles down = Time taken for Jill to travel 420 miles up $440x + 20 \cdot 1.5x = 420y$

$$681.5x = 420y \quad 68y = 63x$$

$$y = \frac{63x}{68} \quad \text{---(1)}$$

Case 2 : Time taken for Jack to travel 440 miles up and 440 miles down = Time taken for Jill to travel 440 miles up and 440 miles down – 1

$$440x + 440 \cdot 1.5x = 440y + 440 \cdot 1.5y - 1 \quad 440 \times 53(1y - 1x) = 1 \quad \text{-----(2)}$$

Substitute (2) in (1) we get $x = \frac{440 \times 5 \times 53 \times 63}{68}$

$$t = \frac{440 \times 53}{1x}$$

$$t = 12.6 \text{ min}$$

3. Data Sufficiency question:

A, B, C, D have to stand in a queue in descending order of their heights. Who stands first? I. D was not the last, A was not the first.

II. The first is not C and B was not the tallest.

Sol:

D because A is not first neither C and B is not the tallest person. The only person will be first is D. So option (C). We can answer this question using both the statements together.

4. One of the longest sides of the triangle is 20 m. The other side is 10 m. Area of the triangle is 80 m^2 . What is the another side of the triangle?

Sol:

If a,b,c are the three sides of the triangle.

Then formula for Area = $\frac{1}{2} \sqrt{s(s-a)(s-b)(s-c)}$ Where $s = \frac{a+b+c}{2}$

[Assume a = 20 ,b = 10]

Now,

Check the options.

5. Data Sufficiency Question:

a and b are two positive numbers. How many of them are odd?

I. Multiplication of b with an odd number gives an even number.

II. $a^2 - b$ is even.

Sol:

From the 1st statement b is even, as when multiplied by odd it gives even $a^2 - b = \text{even}$

\Rightarrow a is even

Here none of a and b are odd

6. Mr. T has a wrong weighing pan. One arm is lengthier than other. 1 kilogram on left balances 8 melons on right, 1 kilogram on right balances 2 melons on left. If all melons are equal in weight, what is the weight of a single melon.

Sol:

Let additional weight on left arm be x .

Weight of melon be m

$$x + 1 = 8 \times m \text{ --- (1)}$$

$$x + 2 \times m = 1 \text{ --- (2)}$$

Solving 1 & 2 we get.

Weight of a single Melon = 200 gm.

7. a, b, b, c, c, c, d, d, d, d, Find the 288th letter of this series.

Sol:

Observe that each letter appeared once, twice, thrice They form an arithmetic progression.

1+2+3..... We know that sum of first n natural numbers = $\frac{n(n+1)}{2}$

So $\frac{n(n+1)}{2} \leq 288$

For $n = 23$, we get 276. So for $n = 24$, the given series crosses 288. Ans is X

8. If $ABC = C_3$ and $CAB = D_3$, Then find $D_3 \div B_3$

Sol:

$$ABC = C_3$$

So, look for a number, that has a 3 digit cube, and the last digit of the cube is same as the number itself: $5^3 = 125$

$$\text{So, } CAB = 512 = 8^3 \text{ } D = 8 \text{ and } B = 2 \text{ } 8^3 \div 2^3$$

Answer = 64.

9. There are three trucks A, B, C. A loads 10 kg/min. B loads $13 \frac{1}{3}$ kg/min. C unloads 5 kg/min. If three simultaneously works then what is the time taken to load 2.4 tones?

Sol:

$$\text{Work done in 1 min} = 10 + 40 \frac{1}{3} - 5 = 55 \frac{1}{3} \text{ kg/min}$$

For 1 kg = $\frac{3}{55}$ min

For 2.4 tonnes = $\frac{3}{55} \times 2.4 \times 1000 = 130$ mins = 2hrs 10min

10. If $A = x^3y^2$ and $B = xy^3$, then find the HCF of A, B Sol:

$$A = x^3 \times y^2$$

$$B = x \times y^3$$

To find the HCF of the above numbers, take minimum power of x and y in both the numbers.

HCF = Common terms from both A & B and minimum powers = $x \times y^2$

11. HERE = COMES – SHE, (Assume s = 8) Find value of R + H + O

Sol:

$$\text{HERE} = \text{COMES} - \text{SHE}$$

HERE

+ SHE

COMES

$$\text{----- } E + E = S = 8 \Rightarrow E = 4$$

3 digit no. + 4 digit no. = 5 digit no. $\Rightarrow C = 1, O = 0, H = 9$ etc So $9454 + 894 = 10348$

– 894 -----

9454

$$R + H + O = 5 + 9 + 0 = 14$$

12. A person is 80 years old in 490 and only 70 years old in 500 in which year is he born? a)

400

b) 550

c) 570

d) 440

Sol:

He must have born in BC 570 Hence in BC 500 he will be 70 years And in BC 490 he will be 80 years

13. Lucia is a wonderful grandmother and her age is between 50 and 70. Each of her sons have as many sons as they have brothers. Their combined ages give Lucia's present age.what is the age?

Sol:

The question basically states that if Lucia were to have say 10 sons, then each son would have 9 sons (Lucia's grandsons – since each son has 9 brothers). So the total in this case would be 9×10 grandsons + 10 sons = 100.

Let us assume Lucia has got x sons. Now each son has (x - 1) sons. So total = x + (x - 1) x. For x = 8 we get 64 which is in between 50 and 60. (7 x 8 grandsons + 8 sons = 64)

14. A family X went for a vacation. Unfortunately it rained for 13 days when they were there. But whenever it rained in the mornings, they had clear afternoons and vice versa. In all they enjoyed 11 mornings and 12 afternoons. How many days did they stay there totally?

Sol:

Clearly 11 mornings and 12 afternoons = 23 half days since 13 days raining means 13 half days.

so $23 - 13 = 10$ half days (not affected by rain)

so 10 half days = 5 full days

Total no. of days = 13 + 5 = 18 days.

15. Find the unit digit of product of the prime number up to 50 .

Sol:

Prime number up to 50 are 2,3,5,7,11,...,43,47

$$\text{Product} = 2 \times 3 \times 5 \times 7 \times 11 \times \dots \times 43 \times 47$$

There's a term $2 \times 5 = 10$ So unit digit of product = 0

16. HOW + MUCH = POWER Then P + O + W + E + R =

Sol: HOW

+ MUCH -----

POWER

Here p = 1 and M = 9 because after adding carry bit it gives result 10. Hence O = 0, here three digits 0, 1, 9 have been used.

Now, put all remaining value in 3rd column and check which value is suitable for H, U and W and we get H = 7, U = 8 and W = 5 and 1 carry which will be added in 4th column.

Now in first column we have W + H = R means $5 + 7 = 2$ and 1 carry will add in 2nd column in 2nd column, $0 + C = E$, $0 + 3 + 1 = 4$ so C = 3, E = 4

Therefore,

9837

+ 705

10542

$$\text{so } P + O + W + E + R = 1 + 0 + 5 + 4 + 2 = 12$$

17. Complete the series.. 2 2 12 12 30 30 ?

Sol:

Answer is 56.

It follows the series as: $1 \times 2 = 2$

$$2 \times 1 = 2$$

$$3 \times 4 = 12$$

$$4 \times 3 = 12$$

$$5 \times 6 = 30$$

$$6 \times 5 = 30$$

$$7 \times 8 = 56$$

This is the required number for the series.

Reasoning Test Placement Papers

1. Class A has a higher enrollment than Class B.

Class C has a lower enrollment than Class B.

Class A has a lower enrollment than Class C.

If the first two statements are true, the third statement is A. true

B. false

C. uncertain

D. None

Answer: Option B

2. All animals have

A. Eyes

B. Four legs C. Horns

D. Instincts

Answer: Option D

3. We, at Comfort Stationers, have always been striving to provide stationery items that would make your work more enjoyable and less strenuous. Our latest innovations are a smooth-flow pen and gradual-friction paper. A combination of these two reduces strain on your fingers and allows faster writing the causes lesser fatigue. Therefore, replacement of your pen and paper with our innovative products reduces cost of clerical jobs.

Which of the following, if true, would weaken the conclusion drawn in the above argument?

- A. Those who are already using the above new products report greater difficulty in transition from new products to regular ones than from the regular ones to the new ones.
- B. The cost of manufacturing these new products is not more than the cost of manufacturing the regular ones and the new products last longer than the regular ones.
- C. The number of offices using the new products is increasing month by month.
- D. These products need to be purchased in huge lots and need to be stored in special conditions. The cost of procurement and strong is quite high.

Answer: Option D

Solution:

The passage talks about the advantages in writing by using the new kind of pen and paper and arrives at a conclusion about the cost of clerical job. We have to show that the new products do not lead to decrease in cost of clerical job.

None of the choice (a), (c) and (e) has anything about the cost. Hence, none of them weakens the conclusion.

Choice (b) states that the new products can be manufactured and they also last longer. This information strengthens the conclusion.

According to choice (d) the procurement and storage costs are very high. This casts a doubt on the conclusion that the cost of clerical job can be decreased by using these new products. Hence, (d) weakens the conclusion.

4. Choose the correct alternative that will continue the same pattern and fill in the blank spaces:

2, 3, 5, 7, 11, (....), 17

A. 12

B. 13

C. 14

D. 15

Answer: Option B

Solution:

Clearly, the given series consists of prime numbers starting from 2. The prime number after 11 is 13. So, 13 is the missing number

5. (A) The Archaeological Survey of India has submitted a report for the Supreme Court that there is no evidence to prove that the Rama Sethu is man made.

(B) Mr. Kailash which is a natural formation, is considered holy and is received by Hindus and Buddhists the world over.

- A. if statement (A) is the cause and statement (B) is its effect.
- B. if statement (B) is the cause and statement (A) is its effect.
- C. if both the statements (A) and (B) are independent causes.
- D. if both the statements (A) and (B) are effects of independent causes.

Answer: Option D

Solution:

The cause for ASIs report and the cause for Hindus and Buddhists considering Kailash as holy mountain are different.

6. Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement:

Input: 39 121 48 18 76 112 14 45 63 96 Step I: 14 39 121 48 18 76 112 45 63 96 Step II: 14 39 48 18 76 112 45 63 96 121 Step III: 14 18 39 48 76 112 45 63 96 121 Step IV: 14 18 39 48 76 45 63 96 112 121 Step V: 14 18 39 45 48 76 63 96 112 121

Step VI: 14 18 39 45 48 63 76 96 112 121

This is the final arrangement and step VI is the last step for this input.

How many steps will be required for getting the final output for the following input?

Input: 101 85 66 49 73 39 142 25 115 74 A. 5

B. 6

C. 7

D. 8

Answer: Option D

Solution:

Step I: The smallest number becomes first and the remaining numbers shift one position rightward.

Step II: The largest number among given numbers becomes last and the remaining numbers shift one position leftward.

The steps are repeated alternately till all the numbers get arranged in ascending order and that will be that last step for that particular input.

7. Statement:

The principal instructed all the teachers to be careful in class because some students may disturb other students.

Assumptions:

I. The teachers may handle the situation properly and they may restrict the naughty students.

II. The students will welcome the decision of the Principal.

A. If only assumption I is implicit B. If only assumption II is implicit C. If either I or II is implicit

D. If neither I nor II is implicit Answer: Option A

Solution:

I is implicit; that is why the principal instructed the teachers to carry the responsibility. II is not implicit. The mischievous section may not welcome the decision.

8. Labourer is related to wages in the same way as an entrepreneur is related to?

A. Loan

B. Interest C. Taxes D. Profit

Answer: Option D

Solution:

First earns in the form of a second.

9. Event (A): Company X is opening an office in city Y for marketing the company's products.

Event (B): Company X has chalked out an expansion plan, involving raising production capacity at its existing plants.

A. If 'A' is the effect and 'B' is its immediate and principle cause.

B. If 'B' is the effect and 'A' is its immediate and principle cause.

C. If 'A' is the effect but 'B' is not its immediate and principle cause. D. If 'B' is the effect but 'A' is not its immediate and principle cause. Answer: Option C

Solution:

Events (A) and (B) are related events and chronologically (B) occurs before (A) and because of as they are planning to increase capacity, they have to make a plan to sell their products also so they open new offices for marketing those products. But opening an office in a particular city, requires other events such as market survey etc. It is not the immediate and principle cause.

10. Statement:

Cutting down of forests is a threat to the wild life. Most of the species of animals are on the verge of extinction.

Courses of Action:

I. The species of animals, which are on the verge of extinction, must be protected by creating wild life sanctuaries which contain flora that defines the native habitat of the endangered animals.

II. To the maximum extent possible we should stop deforestation. III. Growing urban forests to compensate for deforestation.

A. Only II follows

B. Only III follows

C. Only I and II follow D. Only I and follows Answer: Option C Solution:

Here the problem is extinction of various species of animals, so providing them their native habitat is the proper solution for the problem.

II is a proper course of action, as stopping deforestation can solve the problem to some extent.

III is not a proper course of action as urban forest cannot be the habitat for the wild animals.

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

11.522 1235 2661 4800 7652 11217 ?

A. 15495

B. 16208

C. 14782

D. 16921

Answer: Option A

Answer: Option C

14. EPITOMIZE

A. disappoint

B. distend

C. exemplify

D. generate Answer: Option C

15. According to pirate lore, a terrible _____ would follow whoever opened the treasure chest.

A. precursor B. precession C. rendition D. insurgence E. malediction

Answer: Option E

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Puzzles

1. There is an escalator and 2 persons move down it. A takes 50 steps and B takes 75 steps while the escalator is moving down. Given that the time taken by A to take 1 step is equal to time taken by B to take 3 steps. Find the no. of steps in the escalator while it is stationary.

Solution (not sure):

If A takes 1 step in one second, then B takes 3 steps in one second. If A takes t_1 seconds to take 50 steps, then B takes 150 steps in t_1 seconds.

For B, to take 150 steps he requires t_1 seconds, then to take 75 steps he requires $t_1/2$ seconds.

So now, $s_1=50$, $t_1 = t_1$ & $s_2=75$, $t_2=t_1/2$

ans = $(s_1 \cdot t_2 - s_2 \cdot t_1) / (t_1 - t_2)$ which gives 100.

so 100 steps is the answer

2. If 5/2 artists make 5/2 paintings using 5/2 canvases in 5/2 days then how many artists are required to make 25 paintings using 25 canvases in 25 days?

3. If the digits of my present age are reversed then I get the age of my son. If 1 year ago my age was twice as that of my son. Find my present age.

ans. father-73, son-37

4. There are 6561 balls out of them 1 is heavy. Find the min. no. of times the balls have to be weighed for finding out the heavy ball.

ans. 8

5. If i walk with 30 miles/hr i reach 1 hour before and if i walk with 20 miles/hr i reach 1 hour late. Find the distance between 2 points and the exact time of reaching destination is 11 am then find the speed with which it walks.

ans. 120 miles and 24 miles/hr

6. There r four face cards (J,Q,K,A) all of different types (diamond, club, spade, heart) and some conditions r given. find the order of cards

ans. king -> jack -> queen -> ace

heart diamond spade club

7. If A,B,C,D,E r 5 members of a family. 4 of them give true statements :

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Page 1

1. E is my mother in law

2. C is my son in law's brother 3. B is my father's brother

4. A is my brother's wife

Who made the stmt. and what r the realtions among them ans. E

|

A<-->B--C

|

D

<--> denotes husband-wife -- denotes brothers

8. The product of 5 different temperatures is 12. If all of them are integers then find all the temperatures

ans. -2, -1, 1, 2, 3

9. There are 9 cities numbered 1 to 9. From how many cities the flight can start so as to reach the city 8 either directly or indirectly such that the path formed is divisible by 3. eg. 1-3-6-8.

10. If I do this puzzle I find it to be harder than the last puzzle that I did before that after that.....very complex stmt.

Is that puzzle difficult, easy, can't say or depends on the no. of puzzles

11. Replace each letter by a digit. Each letter must be represented by the same digit and no beginning letter of a word can be 0.

ONE ONE ONE ONE

----- TEN -----

Ans: O = 1, N = 8, E = 2, T = 7.

12. Ann, Boobie, Cathy and Dave are at their monthly business meeting. Their occupations are author, biologist, chemist and doctor, but not necessarily in that order.

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Dave just told the biologist that Cathy was on her way with doughnuts. Ann is sitting across from the doctor and next to the chemist. The doctor was thinking that Boobie was a goofy name for parents to choose, but didn't say anything. What is each person's occupation?

Ans: Since Dave spoke to the biologist and Ann sat next to the chemist and across the doctor, Cathy must be the author and Ann the biologist. The doctor didn't speak, but David did, so Bobbie is the doctor and Dave the chemist.

13. Sometime after 10:00 PM a murder took place. A witness claimed that the clock must have stopped at the time of the shooting. It was later found that the position of both the hands were the same but their positions had interchanged. Tell the time of the shooting (both actual and claimed).

Ans: Time of shooting = 11:54 PM Claimed Time = 10:59 PM. 14. Next number in the series is 1 , 2 , 4 , 13 , 31 , 112 , ?

Ans: 224.

No number has digits more than 4. All of them are 1 , 2, 4, 8 , 16 , 32 , 64 converted to numbers in base 5.

15. Shahrukh speaks truth only in the morning and lies in the afternoon, whereas Salman speaks truth only in the afternoon. A says that B is Shahrukh. Is it morning or afternoon and who is A - Shahrukh or Salman?

Ans: Afternoon.A is Salman.

16. Two trains starting at same time, one from Bangalore to Mysore and other in opposite direction arrive at their destination 1 hr and 4 hours respectively after passing each other. How much faster is one train from other?

Ans: Twice.

17. There are 6 volumes of books on a rack kept in order (ie vol.1, vol. 2 and so on). Give the position after the following changes were noticed. All books have been changed Vol.5 was directly to the right of Vol.2 Vol.4 has Vol.6 to its left and both weren't at Vol.3's place.Vol.1 has Vol.3 on right and Vol.5 on left. An even numbered volume is at Vol.5's place Find the order in which the books are kept now.

Ans: 2, 5,1,3,6,4.

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18. I bought a car with a peculiar 5 digit numbered licence plate which on reversing could still be read. On reversing value is increased by 78633. Whats the original number if all digits were different?

Ans: Only 0 1 6 8 and 9 can be read upside down. So on rearranging these digits, we get the answer as 10968.

19. The shape in the sketch below is that of a square attached to half of a similar square. Divide it into four equal pieces.

Ans: Hint : The figure can be divided into 12 equal triangles.

20) There are two balls touching each other circumferencially. The radius of the big ball is 4 times the diameter of the small all. The outer small ball rotates in anticlockwise direction circumferencially over the bigger one at the rate of 16 rev/sec. The bigger wheel also rotates anticlockwise at N rev/sec. What is 'N' for the horizontal line from the centre of small wheel always is horizontal.

21)

12 3 4

+ 3 45 5 ----- 46 8 9

- 23 4 5 ----- 23 4 4

+ 1 25 4 -----

36 9 8 -----

Q) Strike off any digit from each number in seven rows (need not be at same place) and combine the same operations with 3 digit numbers to get the same addition. After this strike off another digit from all and add all the No.s to get the same 2 digit No. perform the same process again with 1 digit No.s. Give the ' no.s in 7 rows at each stage.

22) There is a safe with a 5 digit No. The 4th digit is 4 greater than second digit, while 3rd digit is 3 less than 2nd digit. The 1st digit is thrice the last digit. There are 3 pairs whose sum is 11. Find the number.

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Ans: 65292.

23) there are 2 guards Bal and Pal walking on the side of a wall of a wearhouse(12m X 11m) in opposite directions. They meet at a point and Bal says to Pal "See you again in the other side". After a few moments of walking Bal decides to go back for a smoke but he changes his direction again to his previous one after 10 minutes of walking in the other(opposite) direction remembering that Pal will be waiting for to meet. If Bal and Pal walk 8 and 11 feet respectively, how much distance they would have travelled before meeting again.

24. 13 kigs and 6 libs can produce 510 tors in 10 hrs, 8 kigs and 14 libs can produce 484 tors in 12 hrs.

Find the rate of production of tors for kigs and libs. Express the answer in tors/hr.

25) xxx)xxxxx(xxx

3xx ----- xxx x3x -----

xxx

3xx -----

Q) Find the 5 digit No.

Hint: 5 is used atleast once in the calculation.

26) A fly is there 1 feet below the ceiling right across a wall length is 30m at equal distance from both the ends. There is a spider 1 feet above floor right across the long

wall equidistant from both the ends. If the width of the room is 12m and 12m, what distance is to be travelled by the spider to catch the fly, if it takes the shortest path.

27) Ramesh sits around a round table with some other men. He has one rupee more than his right person and this person in turn has 1 rupee more than the person to his right and so on, Ramesh decided to give 1 rupee to his right & he in turn 2 rupees to his right and 3 rupees to his right & so on. This process went on till a person has 'no money' to

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give to his right. At this time he has 4 times the money to his right person. How many men are there along with Ramesh and what is the money with poorest fellow.

28) Question related to probabilities of removing the red ball from a basket, given that two balls are removed from the basket and the other ball is red. The basket contains blue, red, yellow balls.

29) Venkat has 1 boy & 2 daughters. The product of these children's age is 72. The sum of their ages gives the door number of Venkat. Boy is elder of three. Can you tell the ages of all the three.

30) L: says all of my other 4 friends have money M: says that P said that exactly one has money N: says that L said that precisely two have money O: says that M said that 3 of others have money. P: L and N said that they have money.

All are liars.

Who has money & who doesn't have?

31) Postman has a data of name surname door number, pet name of 4 families. But only one is correct for each family. There are a set of statements & questions.

33) 4 couples have a party. Depending on the set of statements, find who insulted whom and who is the host of the party.

34) 5 women given some of their heights (tall,medium,short) Hair(long, plaited), stards(Black or Brown), sari,2 medium,2-short.Tall->no sari.Plaited->medium. Answer the combinations.

35) A person has to go both Northwards & Southwards in search of a job. He decides to go by the first train he encounters. There are trains for every 15 min both southwards and northwards. First train towards south is at 6:00 A.M. and that towards North is at 6:10. If the person arrives at any random time, what is the probability that he gets into a train towards North.

36) A person has his own coach. Whenever he goes to railway station he takes his coach. One day he was supposed to reach the railway station at 5 O'clock. But he finished his work early and reached at 3 O'clock. Then he rung up his residence and asked to send the coach immediately. He came to know that the coach has left just now to the railway station. He thought that the coach has left just now to the railway station.

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He thought that he should not waste his time and started moving towards his residence at the speed of 3 miles/hr. On the way, he gets the coach and reaches home at 6 o'clock. How far is his residence from railway station.

37) Radha, Geeta & Revathi went for a picnic. After a few days they forgot the date, day and month on which they went to picnic. Radha said that it was on Thursday, May 8 and Geeta said that it was Thursday May 10. Revathi said Friday Jun 8. Now one of them told all things wrongly, others one thing wrong and the last two things wrongly. If April 1st is tuesday, what is the right day, date and month?

38. There is 66x33m rectangular area. Ram is $1\frac{1}{8}$ times faster than Krishna. Both of them started walking at opposite ends and they met at some point then, Ram said "See

you in the other end" Then they continued walking. After some time Ram thought he will have tea so he turned back walked back 15 meters then he changed his mind again and continued walking. How much Krishna has traveled by the time they meet?

39. There are 5 burglars and once went to a bakery to rob it obviously The first guy ate $\frac{1}{2}$ of the total bread and $\frac{1}{2}$ of the bread. The second guy ate $\frac{1}{2}$ of the remaining and $\frac{1}{2}$ of the bread. The third guy ,fourth guy and fifth guy did the same. After fifth guy there is no bread left out. How many bread are there?

40. All members belonging to D are members of A.

All members belonging to E are members of D.

All members belonging to C are members of both A & D.

Some members of A does not belong to D. All members belonging to D are members of E. 5 questions are there.

41. Write each statements true or false:-

1. The sum of the 1st three statements and the 2nd false statement gives the true statement.
2. The no. of true statements false statement.
3. The sum of 2nd true statement and 1st false statement gives the first true statement.
4. There are at most 3 false statements.
5. There is no two consecutive true statements.

42. There are twelve consecutive flags at an equal interval of distance. A man passes the 8th flag in 8 seconds. How many more seconds will he take to pass the remaining 4 flags?

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43. A person has to cover the fixed distance through his horses. There are five horses in the cart. They ran at the full potential for the 24 hours continuously at constant speed and then two of the horses ran away to some other direction. So he reached the destination 48 hours behind the schedule. If the five horses would have run 50 miles

more, then the person would have been only 24 hours late. Find the distance of the destination.

44. A boat M leaves shore A and at the same time boat B leaves shore B. They move across the river. They met at 500 yards away from A and after that they met 300 yards away from shore B without halting at shores. Find the distance between the shore A & B.

45. A person was going through train from Bombay to Pune. After every five minutes he finds a train coming from opposite direction. Velocity of trains are equal of either direction. If the person reached Pune in one hour then how many trains he saw in the journey?

46. Food grains are to be sent to city from godown. Owner wants to reach the food grains at 11 O' Clock in the city. If a truck travels at a speed of 30km/hr then he will reach the city one hour earlier. If the truck travels at a speed of 20km/h then he will reach the city one hour late. Find the distance between the godown to city. Also with which speed the truck should travel in order to reach at exactly 11 'O clock.

47. There are five persons A,B,C,D,E whose birthdays occur at the consecutive days. Birthday of A is some days or day before C & birthday of B is exactly the same days or day after E. D is two days older than E. If birth day of C is on Wednesday then find out the birthdays of other.

48. Persons say these statements.

A says either Democratic or liberal wins the elections. B says Democratic wins.

C says neither democratic nor liberal wins the election. Of these only one is wrong. Who wins the election?

49. Six persons A,B,C,D,E &F went to soldier cinema. There are six consecutive seats. A sits in the first seat followed by B, followed by C and so on. If A taken on of the six seats, then B should sit adjacent to A. C should sit adjacent to A or B. D should sit adjacent to A, B or C and so on. How many possibilities are there ?

50. Suppose there are four grades A, B, C, D. (A is the best and D is the worst) 4 persons Jack, Jean, Poul and Lucy wrote the final exam and made the statements like this:-

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1. Jack: If I will get A then Lucy will get D.
2. Lucy: If I will get C then Jack will get D.
Jack grade is better than Poul grade.
3. Jean: If Jean doesn't get A then Jack will not get A.
4. Poul: If Jack get A, then Jean will not get B, Lucy will get C, I won't either A or B. If all the above statements are true, then which person will get which grade?

51. Each man dances with 3 women, Each women dances with 3 men. Among each pair of men they have exactly two women in common. Find the no. of men and women.

52. A survey was taken among 100 people to find their preference of watching t.v. programmes. There are 3 channels. Given no of people who watch at least channel 1, at least channel 2, at least channel 3, no channels at all, at least channels 1 and 3, at least channels 1 and 2, at least channels 2 and 3. Find the no of people who watched all three.

53. A bird keeper has got P pigeon, M mynas and S sparrows. The keeper goes for lunch leaving his assistant to watch the birds. Suppose $p=10$, $m=5$, $s=8$.
a.) When the bird keeper comes back, the assistant informs that x birds have escaped. The bird keeper exclaims oh no! all my sparrows are gone. How many birds flew away.
b.) when the bird keeper come back, the assistant told him that x birds have escaped. The keeper realised that atleast 2 sparrows have escaped. What is minimum no of birds that can escape.

54. Select from the five alternatives A,B,C,D,E. At the end of each question, two conditions will be given. The choices are to filled as follows.

A: If a definite conclusion can be drawn from condition 1.

B: If a definite conclusion can be drawn from condition 2.

C: If a definite conclusion can be drawn from condition 1 and 2. D: If a definite conclusion can be drawn from condition 1 or 2. E: No conclusion can be drawn using both conditions.

1. Person 1 says $N < 5$ Person 2 says $n > 5$. Person 3 says $3N > 20$ Person 4 says $3n > 10$ Person 5 says $N < 8$. What is the value of N ?

55. There are N coins on a table. There are two players A&B. You can take 1 or 2 coins at a time. The person who takes the last coin is the loser. A always starts first.

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1. If $N=7$, then

- a) A can always win by taking two coins in his first chance. b) B can win only if A takes two coins in his first chance.
- c) B can always win by proper play.
- d) none of the above.

2. A can win by proper play if N is equal to a) 13 b) 37 c) 22 d) 34 e) 48

Ans: E.

3. B can win by proper play if N is equal to a) 25 b) 26 c) 32 d) 41 e) none

4. if $N < 4$, can A win by proper play always?

56. There are 4 parties A,B,C,D. There are 3 people x,y,z. X-says A or D will win.

Y-says A will not win. Z-says B or D will not win. Only one of them is true. Which party won?

57. 5 persons R,S,T,U,V are contesting for a medal. Evaluation is over English, Maths, Physics, Chemistry and Hindi. Topper will get 5 marks, least will get 1 mark. No ties anywhere. R got 24 and won the overall medal. V gets first in Chemistry and third in Hindi, T got consistent scores in 4 subjects. Their final standings were in the alphabetical order. What was the score of S in Chemistry.

57. There are 3 types of castes, say A,B,C. A- always tells truth, B- always false, C- alternating.

X says --> Z is of C type, I am of A type.

Y says --> X is a B type.

Z says --> X is of B type. Who is of which type?

58. Persons A and B. Person A picks a random no. from 1 to 1000. Then person B picks a random no. from 1 to 1000. What is the probability of B getting no. greater than what A has picked?

59. Three boys and three girls brought up together. Jim, Jane, Tom, Virginia, Dorothy, XXX. They marry among themselves to form three couples. Conditions are:-

i) Sum of their ages would be the same.

ii) Virginia was the oldest.

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iii) Jim was Dorothy's brother.

iv) Sum of ages Jane+Jim and Tom+Dorothy is same. Give the three couples.

60. $X^{(1/3)} - X^{(1/9)} = 60$. Solve for X.

61. $XZ + Y + XY + Z = YZ + X$. Find the three digits.

62. Two boats start from opposite banks of river perpendicular to the shore. One is faster than the other. They meet at 720 yards from one of the ends. After reaching opposite ends they rest for 10mins each. After that they start back. This time on the return journey they meet at 400yards from the other end of the river. Calculate the width of the river.

63. Basketball Tournament organizers decided that two consecutive defeats will knock out the team. There are 51 teams participating. What is the maximum no. of matches that can be played.

64. The Master says to his grandmaster that me and my three cousins have ages in prime nos. only. Summation of our ages is 50. Grandmaster who knows the age of the master instantly tells the ages of the three cousins. Tell the ages of three cousins.(1 is not considered as prime no.)

65. There are two families Alens and smiths. They have two children each. Their names are A,B,C,D whose ages are different and ages are less than or equal to 11. The following conditions are given:-

i) A's age is three years less than his brother's age .

ii) B is eldest among the four.

iii) C is half the age of the eldest in Alens family.

iv) The difference in sum of the ages of Alens children and smiths children is same as that of five years ago.

Find the ages of all the children.

66. a,b,c,d,e are having numerical values. There are some conditions given:- a) $a=c$
 $c=b$ $b=e$

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b) Difference between a and c is same as difference between c and b is same as difference between a and d.

c) $c < a$ and $c > d$.

Then find a,b,c,d,e.

67. There are six cards in which it has two king cards. all cards are turned down and two cards are opened.

a) What is the possibility to get at least one king.

b) What is the possibility to get two kings.

68. There are 5 persons a,b,c,d,e and each is wearing a block or white cap on his head. A person can see the caps of the remaining four but can't see his own cap. A person wearing white says true and who wears block says false.

i) a says i see 3 whites and 1 block.

ii) b says i see 4 blocks.

iii) e says i see 4 whites.

iv) c says i see 3 blocks and 1 white.

Now find the caps weared by a,b,c,d and e.

69. There are two women, kavitha and shamili and two males shyam, aravind who are musicians. Out of these four one is a pianist, one flutist, violinist and drummer.

i) Across aravind beats pianist.

ii) Across shyam is not a flutist.

iii) Kavitha's left is a pianist.

iv) Shamili's left is not a drummer. v) Flutist and drummer are married.

70. When Arthur is as old as his father Hailey is now, he shall be 5 times as old as his son Clarke is now. By then, Clarke will be 8 times older than Arthur is now. The combined ages of Hailey and Arthur are 100 years. How old is Clarke?

71. The seven digits in this subtraction problem are 0, 1, 2, 3, 4, 5 and 6. Each letter represents the same digit whenever it occurs.

DA D C B -EBEG -----

BF E G

What digit is represented by each letter?

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72. The Jones have named their four boys after favorite relatives; their friends, the Smiths, have done the same thing with their three boys. One of the families has twin boys. From the following clues, can you determine the families of all seven children and their ages?

- i) Valentine is 4 years older than his twin brothers.
- ii) Winston, who is 8, and Benedict are not brothers. They are each named after a grandfather.
- iii) Briscoe is two years younger than his brother Hamilton, But three years older than Dewey.
- iv) Decatur is 10 years old.
- v) Benedict is 3 years younger than Valentine; they are not related.
- vi) The twins are named for uncles.

73. Motorboat A leaves shore P as B leaves Q; they move across the lake at a constant speed. They meet first time 600 yards from P. Each returns from the opposite shore without halting, and they meet 200 yards from. How long is the lake?

74. On the Island of imperfection there is a special road, Logic Lane, on which the houses are usually reserved for the more mathematical inhabitants. Add, Divide and Even live in three different houses on this road (which has houses numbered from 1-50). One of them is a member of the Pukka Tribe, who always tell the truth. Another is a member of the Wotta Tribe, who never tell the truth and the third is a member of the Shalla Tribe, who make statements which are alternately true and false, or false and true. They make statements as follows:-

ADD:

1. The number of my house is greater than that of Divide's.

2. My number is divisible by 4.
3. Even's number differs by 13 from that of one of the others.

DIVIDE :

1. Add's number is divisible by 12.
2. My number is 37.
3. Even's number is even.

EVEN :

1. No one's number is divisible by 10.
2. My number is 30.
3. Add's number is divisible by 3.

Find to which tribe each of them belongs, and the number of each of their houses.

75. The names of the inhabitants of Walkie Talkie Land sound strange to the visitors, and they find it difficult to pronounce them, due to their length and a few vowel sounds they contain. The Walkie Talkie guide is discussing the names of four inhabitants –

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A,B,C and D. Their names each contain upto eight syllables, although none of the four names contain the same number. Two of the names contain no vowel sounds; one contains one vowel sound; and one contains two vowel sounds. From the Guide's statements below, determine the number of syllables and vowel sounds in each of the four Walkie Talkie names:-

- i) The one whose name contains two vowel sounds is not A.
- ii) C's name does not contain more than one vowel sound or fewer than seven syllables.
- iii) The name with seven syllables does not contain exactly one vowel sound.
- iv) B and C do not have names with the same number of vowel sounds.
- v) Neither the name with five syllables nor the name with seven syllables contains more than one vowel sound.
- vi) Neither the name with six syllables, nor the B's name, contains two vowel sounds.

76. Two identical twins have a very unusual characteristic. One tells nothing but lies on Mondays, Wednesdays and Fridays, and tells nothing but the truth all other days. The other tells nothing but lies on Tuesdays, Thursdays and Saturdays, and tells nothing but the truth all other days. On Sundays both children speak the truth.

77. According to the information presented, which of the following conversations will be impossible.

a)Twin A : "Today you are a liar"

Twin B : "You are telling the truth"

b)Twin A : "Today you are a liar"

Twin B : "Today I am a truth teller"

c)Twin A : "Tommorow I shall be a liar"

Twin B : "That's correct"

d)Twin A : "Tommorow you will be a liar"

Twin B : "Today you are a truthteller"

e)Twin A : "Yesterday we were both truthtellers" Twin B : "You are lying".

78. Assume that the twins followed a different set of rules, so that on a given day both told only the truth while next day both only lied, alternating days of truth telling and lying. Under these rules,which of the following conversations would be possible?

a) Twin A : "Today you are a liar"

Twin B : "That is correct"

b) Twin A : "Today you are a liar"

Twin B : "That is not so"

c) Twin A : "Tommorow we will be liers" Twin B : "Yesterday we were truthtellers" d)

Twin A : "Tommorow we will be liers" Twin B : "You are 1 year older than I am" e) Twin

A : "We always tell the truth"

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Twin B : "We some times tell the truth".

79. If the twins are heard saying the following on the same day, which choice presents a correct statement ?

Twin A : "It is Sunday Today"

Twin B : "Yesterday was Sunday"

Twin A : "it is summer season now" a) it is a summer sunday.

b) it is a summer monday.

c) it is Monday but not summer.

d) it is Sunday but not summer.

e) it is impossible to determine whether it is Sunday or Monday.

80. In the month of october in a year has exactly four mondays and four fridays, find what day of week will be on the 20th of November of that year.

Ans: 20th November was a wednesday.

81. Six persons A,B,C,D,E & F went to solider cinima. There are six conseutive seats. A sits in one of the seats followed by B, followed by C and soon. If a taken one of the six seats , then B should sit adjacent to A. C should sit adjacent A or B. D should sit adjacent to A, B,or C and soon. How many possibilities are there?

Ans: 32 ways.

83. In mathematica country 1,2,3,4....,8,9 are nine cities. Cities which form a no. that is divisible by 3 are connected by air planes. (e.g. cities 1 & 2 form no. 12 which divisible by 3 then 1 is connected to city 2). Find the total no. of ways you can go to 8 if you are allowed to break the journies.

Ans: 5.

84. ABCDE are sisters. Each of them gives 4 gifts and each receives 4 gifts No two sisters give the same combination (e.g. if A gives 4 gifts to B then no other sisters can give four to other one.)

(i) B gives four to A.

(ii) C gives 3 to E.

How much did A,B,C,E give to D?

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Ans: Donor no of gifts A 1 B - C 1 D 2

85. There are some bulbs, which are numbered from 1 to 100. All the bulbs are in ON conditions. The following operations are performed:-

1. Those bulbs numbered which are divisible by 2 are switched OFF.
2. Those bulbs numbered which are divisible by 3 are switched ON (which are already OFF) and OFF bulbs are switched ON.

3. Similarly bulbs numbered divisible by 4 are either switched ON or OFF depending upon their previous condition.

4. This procedure is adopted till 100th bulb.

At the end there were how many bulbs which were in ON condition? Ans: 10 (only perfect squares).

86. There are different numbers related with A,B,C,D,E such that, $AB \cdot CD = EEE$. $E \cdot CD - AB = CC$.

Find $AB \cdot D$.

Ans: BE.

87. Find the total no of 10 digits whose sum is 4.

88. Four musician problem (refer GRE BARRONS).

89. GRE BARRONS problem --> Problem number 25 to 28 page no. 4.

90. A, B, C are 3 girls and there are 770 Apples. For every 4 Apples, A takes, B takes 3. For every 6 Apples, C takes 7 Apples? Ans: 261:145:303.

91) T, U, V are 3 friends digging groups in fields. If T & U can complete 1 groove in 4 days & U & V can complete 1 groove in 3 days & V & T can complete in 2 days. Find how many days each takes to complete 1 groove individually. Ans: 24 days.

92) 4 mathematician has x apples. If he arranges them in rows of 3 one will be left. The same is the case with 5, 7, 9 apples. But when he arranged them in rows of 11, none will be left. Find the no. of apples.

Ans: 946. (Hint: $11 \cdot 6$ $11 \cdot 11$ $11 \cdot 16$ $11 \cdot 21 = 2E \dots 11 \cdot 76 = 3D946$).

93) H starts running after T reaches $\frac{1}{5}$ th they must when H reach $\frac{1}{6}$ th, if H wants win at what speed H should be run? Note: One circle is there, you show this type of problem.

94) There are 4 mothers, 4 daughters and the colour of their dresses, and they are aged 1, 2, 3 & 4. Details of the dresses are given & then it asked about the remaining dresses.

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95) There are 5 levels of dolls and each of different colors & condition are given. Note: This type of problem also refer.

96) 5 student A, B, C, D, E. One student knows 5 languages. Like that up to one language. Conditions:-

*) Spanish is most popular language.

*) 3 persons knows Porthigese.

*) B & C normally speak English, but when D gathered, they switched to Spanish because that is only common between the three.

*) Only language common between A, B, E is French.

*) Only language common between C & E is Italian.

97. An escalator is descending at constant speed. A walks down and takes 50 steps to reach the bottom. B runs down and takes 90 steps in the same time as A takes 10 steps. How many steps are visible when the escalator is not operating. ANS. 150.

98. Every day a cyclist meets a train at a particular crossing. The road is straight before the crossing and both are travelling in the same direction. Cyclist travels with a speed of 10 Kmph. One day the cyclist comes late by 25 min. and meets the train 5km before the crossing. What is the speed of the train.

60 kmph.

99. Five persons mukherjee, misra, iyer, patil and sharma, all take then first or middle names in the full names. There are 4 persons having first or middle name of kumar, 3 persons with mohan, 2 persons with dev and 1 anil.

-- Either mukherjee and patil have a first or middle name of dev or misra and iyer have their first or middle name of dev.

-- Of mukherjee and misre, either both of them have a first or middle name of mohan or neither have a first or middle name of mohan.

-- Either iyer or sharma has a first or middle name of kumar but not both.

Who has the first or middle name of anil?

Today is Mukherjee.

101. Two turns have certain peculiar characteristics. One of them always lies on Monday, Wednesday, Friday. The other always lies on Tuesdays, Thursdays and Saturdays. On the other days they tell the truth. You are given a conversation. Person A -- Today is Sunday and my name is Anil.

Person B -- Today is Tuesday and my name is Bill. What is today? Today is Tuesday.

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102) Which of the following statements can be deduced from the information presented?

- i) If it is Sunday, the twins will both say so.
 - ii) If it is not Sunday, one twin will give the correct day and the other will lie about everything.
 - iii) On any given day, only one twin will give his correct name.
- a) i only.
b) i and ii only.
c) i and iii only.
d) ii and iii only. e) i, ii and iii.

103) If the twins are heard saying the following on the same day, which choice presents a correct statement?

Twin A : "It is Sunday Today".

Twin B : "Yesterday was Sunday".

Twin A : "it is summer season now".

- a) It is a summer sunday.
- b) It is a summer monday.
- c) It is Monday but not summer.
- d) It is Sunday but not summer.
- e) It is impossible to determine whether it is Sunday or Monday.

104. Logical reasoning tactics practice puzzle poetry. 1) Henny, Axie, Amie are friends.
Conditions:-

- a) Herry or Axies is the oldest.
- b) If Axie is the oldest, Amie is the youngest.

Who is the youngest & who is the oldest? Ans: Amie is the youngest, Axie is oldest.

105. There is a robbery and four persons are suspected out of them one is actual thief, these are the sentences said by each one of them!

A says D had done

B says A had done

C says i dddnt done

D B lied when he said that i am thief

Out of these only one man is true remaining are false ans C is thef, D is true!

106 How many four digit numbers divisible by four can be formed using

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1, 2, 3, 4; repetitions are not allowed! ans 6

107 A vender solds two things at same cost 12 RS with one item at 25%profit and other at 20%loss,by this transaction he made profit or loss by how much? Ans loss,60paise

108. Conversation between two employees is as follows:-

EMPLOYEE-1: Hello! Now your experience is twice the my experience. EMPLOYEE-2: Exactly two times.

EMPLOYEE-1: But at the last meet, you said that your experience is thrice of my experience.

EMPLOYEE-2: That is when we met at 2 years back, your experience is thrice that of yours.

What is the experience of two employess with the company?

Ans: EMPLOYEE-1: 4 years EMPLOYEE-2: 8 years.

109 ther are four persons A,B,C,D and for languages english ,french,german,italian. conditions

1 only one language is spoken by more than two men

2 A dont know english

3 a man can speak either french or german but not both

4 all man cannot spek in a group(no common language)

5 A can mediate when B and C want to speak with each other 6 each men can speak two languages

ans

A french italian

B english french

C german italian

D german italian

110. There are 3 women ,they having three jewells, named diamond emerald, ruby
3 women A,B,C 3 thieves D,E,F each they had taken one jewel from each of the women
following conditions

one who had taken diamond is the bachelor and most dangerous

D 's brother in law E who is less dangerous than the thief who had
stolen emerald

(this is the key from this e had stolen ruby)

D did nt stolen from B

one more condition is there

111. there were three suspects for a robbery that happend in a bank, tommy, joy and
bruceEach of them were saying that I haven't done anything and the

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other two has done it.police found that tommy was lying .who is the thief. 3M (MARKS).

112. Joe started from bombay towards pune and her friend julie in opposite
direction.they meet at a point .distance travelled by joe was 1.8 miles
more than that of julie.after spending some both started there way.

joe reaches in 2 hours while julie in 3.5 hours. Assuming both were travelling with constant speed. What is the distance between the two cities.

113. there were five hunters A,B,C,D,E and five animals A,B,C,D,E. Hunter having the same name with the animal didn't kill it. Each hunter has missed some animal.

A animal was hunt by the hunter whose name matches with animal hunt by hunter B.

C animal was hunt by the hunter whose name matches with animal hunt by hunter D. E has hunt C and missed D .find out animals hunted by A,B,C. 6m.

114. A boy picks up the phone and asks "Who are you?". The voice from the other side answers "I am your mother's mother-in-law". What is the relation of the boy with the fellow speaking at the other end.

115. Imagine a rectangle. Its length = 2*width. A square of 1 inch is cut on all corners so that the remaining portion forms a box when folded. The volume of the box is _____ cubic inches. Find the original dimensions of the box.

116. 2 persons are doing part time job in a company say A and B. The company is open for all the 7 days of the week. 'A' works every second day. 'B' works every 3rd day. If 'A' works on first june and 'B' works on second june. Find out the date on which both 'A' and 'B' will work together.

117. Consider a pile of Diamonds on a table. A thief enters and steals $\frac{1}{2}$ of the total quantity and then again 2 extra from the remaining. After some time a second thief enters and steals $\frac{1}{2}$ of the remaining+2. Then 3rd thief enters and steals $\frac{1}{2}$ of the remaining+2. Then 4th thief enters and steals $\frac{1}{2}$ of the remaining+2. When the 5th one enters he finds 1 diamond on the table. Find out the total no. of diamonds originally on the table before the 1st thief entered.

118. Imagine 4 persons A,B,C,D. (It is a strength determining game). A found it hard, but could pull 'C' and 'D' to his side. AC and BD pairs on opposite sides found themselves equally balanced. When A and B exchanged thier positions to form pairs AD and BC, BC pair could win and pull AD to thier side. Order the 4 persons in Ascending order according to thier strengths.

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119. Consider a beauty contest. 3 persons participate. Their names are Attractive, Delectable, Fascinating. They are from 3 tribes Pukkas, Wottas, Summas. Pukkas - Always speak truth. Wottas - Always speak lies. Summas - Speak truth and lies alternatively. Each of the 3 persons make 2 statements. The person who speaks truth is the least beautiful. From the statements they give and the character of the 3 tribal types, find out which person belongs to which tribe. Also find out the persons in the Ascending order of their beauty.

120. There are 5 positions-Clerk, Buyer, Cashier, Manager, Floorwalker. There are 5 persons- Mrs.Allen, Mrs.CLark, Twain, Ewing, Bernett. Conditions:

1. Clerk and cashier lunch time 11.30.to12.30.

2. Others 12.30 to 1.30.

3. Mrs.Allen and Bernett play durind lunch time.

4. Clerk and cashier share Bachlor rooms.

5. Ewing and Twain are not in good terms because one day when Twain retuned early from lunch he saw Ewing already sitting for lunch and reported about him to the manager. Find out which person holds which post.

121. There are 8 courses to be handled by faculty in 2 semesters. 4 in 1st semester and 4 in 2nd semester. The candiadates hired for the post are k, l, m, n, o. The courses are Malvino, Shakespeare, Joyce, Chaucer..... Some conditions will be given like,

1. L and N handle Shakespeare and Malvino.

2. M and O handle Malvino and Joyce.

122. A family I know has several children. Each boy in this family has as many sisters as brothers but each girl has twice as many brothers as sisters. How many brothers and sisters are there?

ans: 4 boys and 3 girls.

123. No. of animals is 11 more than the no. of birds. If the no. of birds were the no. of animals and no. of animals were the no. of birds(ie., interchanging no.s of animals and birds.), the total no. of legs get reduced by one fifth ($\frac{1}{5}$).

How many no. of birds and animals were there?

ans: birds:11,animals:22

124. In a soap company a soap is manufactured with 11 parts. For making one soap you will get 1 part as scrap. At the end of the day u have 251 such scraps. From that how many

soaps can be manufactured? ans: $22 + 2 + 1 = 25$.

125. 2 * * |

3 * * | No. 7 does not occur in this

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----- |

5* *

* 4* |

** 3 ----- |

| multiplication.

| Find the product.

* * *** | ----- |

----- ans 2 8 1

32 2 ----- 56 2

56 2 0 8430 0 ----- 9048 2 -----

126. There is a 5digit no. 3 pairs of sum is eleven each.Last digit is 3 times the first one.
3 rd digit is 3 less than the second. 4 th digit is 4 more than the second one.
Find the digit.
ans : 25296.

127. There are five thieves, each loot a bakery one after the other such that the first one
takes $\frac{1}{2}$ of the total no. of the breads plus $\frac{1}{2}$ of a bread. Similarly 2nd, 3rd,4th and
5th also did the same. After the fifth one no.
of breads remained are 3. Initially how many breads were there?

ans : 31.

128. There are some chicken in a poultry. They are fed with corn One sack of corn will
come for 9 days. The farmer decides to sell some chicken and wanted to hold 12

chicken with him. He cuts the feed by 10% and sack of corn comes for 30 days. So initially how many chicken are there?

129. Two people X & Y walk on the wall of a godown in opposite direction. They meet at a point on one side and then go ahead. X after walking for some time, walks in opposite direction for 15 mtrs. Then again he turns back and walks in the original direction. What distance did Y walk before they met again, if X walks 11 mtrs by the time Y walks 8 mtrs.

130. Problem from SAKUNTALA DEVI 'PUZZLES TO PUZZLE U'.

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Problem no: 23(Walking back to happiness.)

131. Find a five digit number subject to following conditions:- a. It contains 2 prime no digits.

b. 3rd digit is the largest.

c. 1st digit = (3rd digit - 1).

c. Sum of 4th digit and 5th digit is less than 1st digit.

d. Value of the 5th digit lies between the value of 1st digit and 2nd digit, 5th digit is one half of the 4th digit.

Ans: 71842

132. 1, 2, 3, 4 digits are available. How many number of 4 digit numbers which are divisible by 4. (There should be no repetition of digits in the numbers) can be formed?
Ans: 6 numbers.

133. A hill of 440 yards is there. Two competitors JACK and JILL go up the hill, first JACK reaches the topmost and immediately starts back and meet JILL 20 yards from the topmost point. Finally JACK reaches the starting point 0.5 minutes earlier than JILL. Speed while coming down is 1.5 times the speed of going up. Find the time taken by JACK for whole journey (880 yards)?

Ans: 6.3 minutes.

134. A merchant in the last day sells 2 lamps for Rs.12 price. He finds that he has got 25 % gain on one and 20% lost on the other. Did he lose or gain overall? If so how much? Ans: 60 paise Loss.

135. 4 persons are there called JOHN, JACOB, PETER, and WILLIAMS. 4 languages are there named ENGLISH, ITALIAN, GERMAN, FRENCH. Conditions:-

- a. There is no common language for all.
 - b. Except one language, no language is spoken by more than two.
 - c. One can know either German or FRENCH but not both.
 - d. John can't speak ENGLISH But John can act as interpreter between JACOB and PETER. Jacob knows GERMAN but he can talk with WILLIAM who doesn't know a word of GERMAN.
 - e. No common language between JOHN, PETER, and WILLIAMS.
- Which two languages does each person speak?

Hint: ITALIAN IS SPOKEN BY THREE PERSONS (This hint is given in Question paper)

136. 5 couples are there. MEN: L, M, N, O, P. WOMEN: S, T, U, V, W.

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10 seats are in one row. Odd numbered seats are reserved for MEN only Like that many conditions are there. This problem is from GRE-BARRONS BOOK.

137. I participated in a race. $\frac{1}{5}$ th of those who are before me are equal to $\frac{5}{6}$ th of those behind me. What were the total number of contestants in the race?

138. Find the 3 digit number. Third digit is square root of first digit. Second digit is sum of first and third digits. Find the number.

139. This problem is of time and work type. Some A and some B are able to produce so many tors in so many hours.(for example 10 A and 20 B are able to produce 30 tors per hour). Like this one more sentence was given. We have to find out the rate of working of A and B in tors/hour.

140. A and B play a game of dice between them. The dice consists of colors on their faces instead of numbers. A wins if both dice show same color. B wins if both dice show different colors. One dice consists of 1 red and 5 blue. What must be the color in the faces of other dice.(i.e how many blue and how many red?). Chances of winning for A and B are even.

141. A girl has 55 marbles. She arranges them in n rows. The n th row consists of n marbles, the $(n-1)$ th row consists of $(n-1)$ marbles and so on. What are the number of marbles in n th row?

142. This question is of analogy type. Some sentences regarding tastes of people to poetry are given like all who like A's Poem, like the poems of B. Like this 7 or 8 sentences were given. Questions were based on this.

143. This question is also of analogy type. Four persons are there A,B,C,D. Each of the four persons own either P,Q,R,S. 10 sentences using if clause were given. We have to find out which belongs to whom.

144) Every station in N railroad issues every other station's ticket. Some stations are added. Now they have to issue 46 more tickets. Give the No. of stations after and before added.

145) There was a race between 3 people. Me, Doug and Anne. When I take 21 steps the distance covered is equal to Doug's 24 steps and Anne's 28 steps. I take 6 steps to every 7 steps of Doug and 8 steps of Anne. Who won the race?

146) How many bearers will an explorer need for a 6 day march if each man can carry the food stuff of one man for 4 days.

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147) Consider the following statements: Albert: Dave did it.

Dave: Tony did it.

Gug: I did not do it.

Tony: Dave lied when he said that I did it.

(a) If only one out of all above statements is true, who did it? (b) If only one out of all above statements is false, who did it?

148) A contribution of Rs. 500 was raised from 500 people. The fee was as follows: Men: Rs. 3.00 each

Women: Rs. 2.00 each

Children: 0.48 each

If number of women is more than number of men, how many children are there?

149) Alice and Liu had some berries. The total of Alice's berries and square of number of berries with Liu is 62. The total of Liu's berries and square of number of berries with Alice is 176. How many berries does each of them have?

150) A rope ladder was left down from a ship. 12 steps of the ladder were exposed at 10:00 am. The queen who was going to visit the ship, said she would visit at 1:00 pm as she would have to climb lesser number of steps then. The tide in the sea increases from morning to afternoon at the rate of 1.2 meters per hour. The distance between any 2 steps of the ladder is 0.4 mts. How many steps will the queen have to climb?

151) 5 hunters Doe, Deer, Hare, Boar and Row kill 5 animals. Each hunter kills an animal that does not correspond to his name. Also each hunter misses a different animal which again does not correspond to his name.

a) The Deer is killed by the hunter, known by the name of the animal killed by Boar.

b) Doe is killed by the hunter, known by name of animal missed by Hare. c) The Deer was disappointed to kill only a Hare and missed the Roe.

152) A local forecast service has accuracy of $\frac{2}{3}$ says No rain, and Meteorological service having accuracy of $\frac{4}{3}$ says Rain. If Preference is as no rain what is the chance of rain?

153) a) 10 1 9 2 8 3 7 4 6 5 5 6 4 7 3 8 2 __ __ b) 2 4 16 5 12 _

Write the next elements in the series.

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154) A Man is sitting in the last coach of train could not find a seat, so he starts walking to the front coach, he walks for 5 min and reaches front coach. Not finding a seat he walks back to last coach and when he reaches there, train had completed 5 miles. What is the speed of the train.

155) The Old car of Mary requires tyres to be changed after each 24000 km. If she wants to go for 42000 km journey then how many minimum number of tyres she will need.

156) A coin is so unbalanced that it may come both heads in 2 tosses as it may come tails in a single toss. What is the probability of getting a head in a single toss.

157) A pen, pencil and eraser together cost \$1.00. if $2E < N$, if $N > 2P$, and $3P > 4E$ then what a single pen will cost?

158) A local forecast service has accuracy of $\frac{2}{3}$ says No rain, and Meteorological service having accuracy of $\frac{4}{3}$ says Rain. if Preference is as no rain what is the chance of rain?

159) Sherlock Holmes thwarted the plan to kidnap Mrs Mary when they were questioned. Mercy and his two associates Shipy and Rany. When they were telling the story one of them told one thing wrong and other true, the other told both true, and the last told both false. Examining the following tell the roles played by each

Mercy:: 1) I wrote the ransom note

2) Shipy broke into the window

Rany 1) Shipy wrote the ransom note

2) Mercy ran away with the lady

Shipy 1) I broke into the window

2) Rany wrote the ransom note.

160) Tom asked Kim, did you like the stamps? She said yes, me and Rob too liked them. Kim again said that Rob got 3 more than he would have got, if I would have kept 2 more than what he got. Tom asked how many you gave Rob? She replied 2 more than what I got. Tell, how many stamps each Rob and Kim got?

161) The Virgo club members used to meet every week to play cards. Each time they used to seat around a round table and for their memory they used all the possible combinations of positions each for a single time only. Can you tell for how many times they met?

Essays Asked

If you are given a chance to change a thing in your hometown, what would you change? Give examples why you want to do so.

Television is creating a communication gap among young generation.

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162. A person needs 6 steps to cover a distance of one slab. If he increases his foot length (step length) by 3 inches he needs only 5 steps to cover the slabs length. What is the length of the each slab.

Ans: 31 inches.

163. There are 19 red balls and one black ball. Ten balls are put in one jar and the remaining 10 are put in another jar. What is the possibility that the black is in the right jar.

Ans: $\frac{1}{2}$.

164. There is one lily in the pond on 1st june. There are two in the pond on 2nd june . There are four on 3rd june and so on. The pond is full with lilies by the end of the june.

(i) On which date the pond is half full?

Ans: 29th. –the june has 30 days).

(ii) If we start with 2 lilies on 1st june when will be the pond be full with lilies. Ans: 29th June.

165. A lorry starts from Banglore to Mysore at 6.00 A.M, 7.00 A.M, 8.00 am.....10 pm. Similarly one another starts from Mysore to Banglore at 6.00 am,7.00 am, 8.00 am.....10.00pm. A lorry takes 9 hours to travel from Banglore to Mysore and vice versa.

(i) A lorry which has started at 6.00 am will cross how many lorries. Ans: 10.

(ii) A lorry which had started at 6.00pm will cross how many lorries. Ans: 14.

166. A person meets a train at a railway station coming daily at a particular time . One day he is late by 25 minutes, and he meets the train 5 k.m. before the station. If his speed is 12 kmph, what is the speed of the train.

Ans: 60 kmph. Refer--Shakuntala Devi Book.

167. A theif steals half the total no of loaves of bread plus $\frac{1}{2}$ loaf from a bakery. A second theif steals half the remaing no of loaves plus $\frac{1}{2}$ loaf and so on. After the 5th theif has stolen there are no more loaves left in the bakery. What was the total no of loaves did the bakery have at the biggining.

Ans: 31.

168. A gardener plants 100 meters towards east, next 100 meters towards north, next 100 meters towards west. 98 meters towards east, 96 meters towards north and 96 meters towards west, 94 meters towards south. and 94 meters towards east and so on. If a person walks between the trees what is the total distance travelled by him before he reaches the center.

Ans: |-----| | | | | | -----| - | -----| -.

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169. There are four women and 3 men. They play bridge one night. Find widow among them. Rules:

(i) wife and husband are never partners.

(ii) Wife and husband never play more than one game. One night they played four games as follows:-

1. ----- + ----- vs ----- + -----

2. ----- + ----- vs ----- + -----

3. ----- + --*--- vs ----- + -----

4. ---*-- + ----- vs ----- + -----

the woman are marked * above.

Ans: Refer Problem 21. Mind Teasers by Summers.

170. From a vessel, $\frac{1}{3}$ rd of the liquid evaporates on the first day. On the second day $\frac{3}{4}$ th of the remaining liquid evaporates. What fraction of the volume is present at the end of the second day.

Ans: 50%.

171. There is a 4 inch cube painted on all sides. This is cut down into of 1 inch cubes. What is the no of cubes which have no pointed sides?

Ans: 8.

172. Sam and Mala have a conversation. Sam says I am certainly not over 40. Mala says I am 38 and you are atleast 5 years older than me. Now, Sam says you are atleast 39. All the statements by the two are false. How old are they really?

Ans: Mala = 38 yrs; Sam = 41 yrs.

173. Ram Singh goes to his office in the city, every day from his suburban house. His driver Gangaram drops him at the railway station in the morning and picks him up in the evening. Every evening Ram Singh reaches the station at 5 O' Clock. Gangaram also reaches at the same time. One day Ram Singh started early from his office and came to the station at 4 O' Clock. Not wanting to wait for the car he starts walking home. Mangaram starts at normal time, picks him up on the way and takes him back house, half an hour early. How much time did Ram Singh walk?

174. In a railway station, there are two trains going. One in the harbour line and one in the main line, each having a frequency of 10 minutes. The main line service starts at 5 o'clock and the harbour line starts at 5.02A.M. A man goes to the station every day to catch the first train that comes. What is the probability of the man catching the first train?

Ans: 0.8.

175. A family X went for a vacation. Unfortunately it rained for 13 days when they were there. But whenever it rained in the mornings, they had clear afternoons and vice versa.

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In all they enjoyed 11 mornings and 12 afternoons. How many days did they stay there totally?

Ans: 18.

176. Albert and Fernandes have two leg swimming race. Both start from opposite ends of the pool. On the first leg, the boys pass each other at 18 m from the deep end of the pool. During the second leg they pass at 10 m from the shallow end of the pool. Both go at constant speed but one of them is faster. Each boy rests for 4 seconds at the end of the first leg. What is the length of the pool?

177. Each alphabet stands for one digit in the following multiplication. T H I S

x I S ----- X F X X

X X U X ----- X X N X X -----

What is the maximum value T can take?

178. If $\frac{1}{4}$ of the time from midnight plus $\frac{1}{2}$ of the time from now to midnight is the present time, then What is the present time? 2. In a 10 digit number, if the 1st digit number is the number of ones, 2nd digit number is the number of twos, and ... so on. 10th digit is the number of zeroes, then find the number.

179. A train blows a siren one hour after starting from the station. After that it travels at $\frac{3}{5}$ th of its speed it reaches the next station 2 hours behind schedule. If it had a problem 50 miles farther from the previous case, it would have reached 40 minutes sooner. Find the distance between the two stations.

180. An army 50 miles long marches at a constant rate. A courier standing at the rear moves forward and delivers the message to the first person and then turns back and reaches the rear of the army as the army completes 50 miles. Find the distance travelled by the courier.

181. Olympic race : 4 contestants : Alan, Charlie, Darren, Brian. There are two races and average is taken to decide the winner. One person comes at the same position in both the race. Charlie always come before Darren. Brian comes first once. Alan comes third atleast once. Find the positions. Alan never comes last. Charlie & Darren comes 2nd atleast once.

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182) There are 6561 number of balls in a bag. Out of which one is heavy ball. In how many minimum number of weighing you can find the heavy ball.

Ans: 8.

183) The profit made by a company in one year is enough to give 6% return on all shares. But as the preferred shares get on return of 7.5%, so the ordinary shares got on return of 5%. If the value of preferred shares is Rs 4,000,000, then what is the value of ordinary shares?

Ans: Rs. 6,000,000.

184) There were 50 players playing a game among themselves. Each player is out of the game when lose 3 matches. What is the number of matches should be played in order to get the winner.

185) A & B two places. C & D are two people. C started from A and D started from B. When they meet each other in the way C traveled 18 m more than D. Then C takes 13 and half a minute and D takes 24 minutes to reach the other end. What was the distance between A & B.

Ans: 126.

186) I have been hearing a girl singing a song for last two score. Song: If seven times five and three times seven is added to my age it would be as far above six nines and four as the difference between twice of my age and a score. Given-A score is 20 yrs.

187) A tourist wants to go from A to B. There are four ways to do this:-

1. To take a wagon. The wagon stops for half an hour at a station in between a & b and then goes to b.
2. To walk to B. If he leaves A at the same time the wagon leaves, he will be between by the wagon by 1 mile to reach B.
3. To walk from A at the same time the wagon leaves from A. He will arrive at the mid station at the time when the wagon is prepared to leave. He can take the wagon from there. This will take shortest time.
4. To go on upto the mid station & to walk from there. He will reach at B 15 minutes before the wagon.

What is the distance between A & B?.

188) In a train there is one brakeman, conductor, engineer & fireman. Their names are Art, John, Tom & Pete given in this order or in reverse order. You have to tell the occupation of the four, w.r.t. these conditions:-

1. Brakeman has no relatives.

2. John is older than art.

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3. Engineer & fireman are brothers.

4. John is pete's nephew.

5. Fireman is not conductor's uncle.

6. Conductor is not engineer's uncle.

Ans: Pete & Tom are brothers. Tom--Father and John is his son. Art--Brakeman.

John--Conductor. Tom--Engineer. Pete--Fireman.

189) There is a 18 strong building and 4 people live in it. They are dentist, lawyer, accountant, architect. Dentist floor is 5 times the lawyer's floor. Account is below dentist. If architect moves two floors up he will be midway between dentist and account. If architect moves to midway of the building (9th floor) then he will be middle of dentist & lawyer. Ground floor can be ignored i.e. floor 0.

Ans: Dentist 15. Accountant 13. Architect 12. Lawyer 3.

190) 4 ladies, Mrs Margarit, Mrs Price, Mrs Winter & Mrs Ellen went for marketing. Each went for 2 shops only. Their surnames are lorret, torrey, doris and marshall. One went to a hardwares shop. Two went to bank. Two went to buchers. All but dorris went to grocery etc. Who went where?

191). A software engineer starts from home at 3 pm for evening walk. He walks at a speed of 4 kmph on level ground and then at a speed of 3 kmph on the uphill and then

down the hill at a speed of 6 kmph to the level ground and then at a speed of 4 kmph to the home at 9 pm. What is the distance on one way?

192). A bag contains certain number of files. Each file is numbered with one digit of 0 to 9. Suppose the person want to get the number between 1 to 2000 (or 7000 check). How many minimum number of files should be present in the bag.

.

193). $a + b + c + d = d + e + f + g = g + h + i = 17$.

If $a = 4$, what are the values of d and g . Each letter taken only one of the digit from 1 to 9.

Ans: $a = 4$, $b = 2$, $c = 6$, $d = 5$, $e = 3$, $f = 8$, $g = 1$, $h = 7$, $i = 9$.

194. A frog jumps 3 ft comes back 2ft in a day. In how many day it will come out of 30ft deep well?

Ans: 28 day.

195. $A - B = C$ $D / E = F$ $G + H = I$

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$C.F = I$

Ans: $A = 9$, $B = 5$, $C = 4$, $F = 2$.

196. When the actual time pass 1 hr, wall clock is 10 min behind it. When 1 hr is shown by wall clock, table clock shows 10 min ahead of 1 hr. When table clock shows 1 hr, the

alarm clock goes 5 min behind it. When alarm clock goes 1 hr, wrist watch is 5 min ahead of it. Assuming that all clocks are correct with actual time at 12 noon, what will be time shown by wrist watch after 6 hr?

Ans: 5:47:32.5 ($n \times 60$) $50/60 \times 70/60 \times 55/60 \times 65/60$.

197. A software engineer just returned from US, has eaten too much fat & put a lot of weight. Every sunday he starts walking 4 km/hr on level ground, then up at 3 km/hr, then back down hill at 6km/hr, then again on level ground at 4km/hr till he reaches his destination. If he returned home at 9 p.m., what distance did he covered?

Ans: 24 km.

198. Answer the questions from facts:-

The members of certain tribe are divided into 3 casts abhor, dravid and magar. 1. An abhor woman can't marry dravid man.

2. A magar woman can't marry a dravid man.

3. A son takes the caste of his father and a daughter takes caste of her mother. 5. All marriages except those mentioned, are not permitted.

6. There are no children born out of a wedlock.

199 There are 2 scales of temp A & B. It was given A varies from 14 to 133 and B varies from 36 to 87. Find the temperature, when temperature of A is equal to temp of B. Ans: 52.5.

Let $t = mx + c$, $c = -70 \Rightarrow m = 51/119$

$a = a.51/119 - 70 \Rightarrow a = 52.5$.

201. There are 4 married couples, out of which, 3 people in a group is needed. But there should not be his or her spouse in the group. How many groups are possible?

Ans: 32.

202. In the 4 digits 1,2,3,4, how many 4 digit numbers are possible which are divisible by 4? Repeats are allowed.

Ans: 64.

203. Two men are going along a track of rail in the opposite direction. One goods train crossed the first person in 20 sec. After 10 min the train crossed the other person who is coming in opposite direction in 18 sec. After the train has passed, when the two persons will meet?

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Ans: Approx. 72 min, check it once.

204. The no. of children, adults. The no. of adults the no. of boys. The no. of boys no. of girls. The no. of girls no. of family. Conditions:-

1. No family is without a child.
2. Every girl has at least one brother and sister.

Ans: $c > a > b > g > f$; 9 6 5 4 3.

205. There are 4 boys - Anand, Anandya, Madan and Murali with nic-names perich, zomie, drummy and madeena not in the same order. Some conditions.

Ans: Anand : Perich

Anandya : Drummy

Madan : Zombie Murali : Madeena

206. There are 2 diamonds, 1 spade and 1 club and 1 ace and also 1 king, 1 jack and 1 ace are arranged in a straight line.

1. The king is at third place.
2. The left of jack is a heart and its right is king.

3. No two red colours are in consecutive.

4. The queens are separated by two cards.

Write the order of which suits (hearts ,clubs)and names (jacks queens etc.) are arranged?

207. Write each statement as true or false.

8 Marks

1. The sum of the first three statements and the second false statement gives the true statement.

2. The no. of true statements > No. of false statements.
3. The sum of second true statement and first false statement gives the first true statement.
4. There are atmost 3 false statements.
5. There are no two consecutive true statements.

208. There are 3 piles each contains 10, 15, & 20 stones. There are A, B, C, D, F, G and H persons. One man can catch upto four stones from any pile. The last man who takes will win. If first A starts next B and so on, who will win?

Ans: May be F.

209. In a certain department store the position of Buyer, Cashier, Clerk, Floorwalkar & Manager are held, though not necessarily respectively, by Evans, Ames, Conroy, Davis amp; Buyer. The cashier & the manager were roommates in college. The Buyer is bachelor, Evans & Miss Ames have only business contacts with each other. Mrs. Conroy was greatly dosappointed when her husband told her that the manager had refuged to

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give him a raise. Davis is going to be the best man when the clerk & the cashier are married. What position does each person held?

210. In a four team foot-ball tournament, all the teams played each Other in three rounds of matches as shown in the Table - A. Some of The results of the tournament are shown in the

Table - B. Using the Clues given below, please fill in the blank columns in the result Table - B (Goals for & Goals Against?).

Note : Two points for win, one point for draw & zero points for defeat are awarded.

Clues :

1.

2. East zone won the tournament despite scoring one less goal than the runners-up.
- 3.
- 4.
5. North zone scored an odd number of goals in their first round Game.
- 6.
- 7.
8. South zone, who failed to score in their final match, were beaten by a two-goal
- 9.

margin in the first round.

- 1.
2. East zone lost their match against west zone.
- 3.
- 4.
5. All four teams scored goals in the second round matches.
- 6.
- 7.
8. West zone scored the same number of goals against east zone as North zone scored
- 9.

against them.

211. East zone scored four goals in round two match.</LI< OL> Table - A (Matches Played)

Round 1

North zone vs South zone

West zone vs east zone. Round 2

South zone vs West zone East zone vs North zone Round 3

South zone vs East zone West zone vs North zone. Table - B (Results)

Played Won Draw Lost Goals For Goals Against Points East Zone 3 - - - ? 3 4

North Zone 3 - - - ? ? 4

West Zone 3 - - - 4 3 3

South Zone 3 - - - 2 5 1

212. In certain community, there are thousand married couples. Two thirds of the husbands who are taller than their wives are also heavier and three quarters of the husbands who are heavier than their wives are also taller. If there are 120 wives who

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are taller and heavier than their husbands, how many husbands are taller and heavier than their wives?

213. Both the Guptas and Sinhas have two young sons, whose ages are under Eleven. The names of the boys, whose ages rounded off to the nearest year are all different, are Rajesh, Praveen, Lalith and Prathap. Taking the ages of the boys only to the nearest year, the following statements are true:-

Rajesh is three years younger than his brother is.

Praveen is the oldest.

Prathap is 5 years older than the younger Sinha's boy.

Lalith is half as old as one of the Guptha's boys.

The total ages of the boys in each family differ by the same amount today as they did five years ago.

214. A long Division Problem:- xx)xxxxxxxxx(xxxxxxx

xx -----

xxx xx -----

xxx xx -----

XX

XX -----

XXX

XXX -----

In the complete solution, there are four 5's. Find the missing digits.

215. Following services are operated by Asian airlines between the two are located in different countries with different time zones. As it is normally done, the time shown is the local time - viz IST & TST.

Regular Flight 17:10 TST

Supersonic Flight 15:40 TST

Arrive Alexandria

Depart Alexandria

Arrived Rampur

Is the arrival time of supersonic flight into Rampur from Alexandria same as the Arrival time of the Regular flight, assuming each Service - Regular and Supersonic maintains its own constant speed of flight.

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20:50 TST 23:40 IST

22:50 TST

216) A, B, C, D, E related. Four of them made these statements each:- i) C is my son-in-law's brother.

ii) B is my father's brother.

iii) E is my mother-in-law.

iv) A is my brother's wife. Who made these statements?

217) A ship is away from the shore by 180 miles. A plane is travelling at 10 times speed of the ship. How long from the shore will they meet?

218) A clock showing 6 o'clock takes 30 secs to strike 6 times. How long will it take to strike 12 at midnight?

Ans: 66 seconds.

219) Only boys aged > 16 wear coats. Boys aged > 15 go to watch football. Some more statements are given. What can be said about those who are watching football?

220) There are 3 societies A, B and C having some tractors each. A Gives B and C as many tractors as they already have. After some days B gives A and C as many tractors as they have. After some days C gives A and B as many tractors as they have. Finally each has 24 tractors. What is the original No. of tractors each had in the beginning?

Ans: A - 39. B - 21. C - 12.

221. $BE \times BE = ACB$.

A, B, C, E are non zero numbers. Find B, E. Ans: B=1 E=9.

222. A, B, C, D, E are having numerical values. There are some conditions given:- a)
 $A=C \iff B \neq E$

b) Difference between A and C as same as difference between C and B as same as difference between A and D.

c) $C < A$ and $C > D$, Then Find A, B, C, D, E.

223. There are six cards, in which, it has two king cards. All cards are turned down and two cards are opened.

a) What is the possibility to get at least one king?

b) What is the possibility to get two kings?

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224. A person went to a shop and asked for change for 1.15 paise, but he said that he could not only give change for one rupee but also for 50p, 25p, 10p and 5p. What were the coins he had?

Ans: 1-->50p 4--->10p 1--->25p.

225. There are 3 nurses and they work altogether only once in a week. No nurse is called to work for 3 consecutive days.

Nurse 1 is off on tuesday, thursday and sunday. Nurse 2 is off on saturday. Nurse 3 is off on thursday, sunday.

No two nurses are off more than once a week. Find the day on which all the 3 nurses were on work.

226. There are 5 persons A, B, C, D, E and each is wearing a black or white cap on his head. A person can see the caps of the remaining 4 but can't see his own cap. A person wearing white says true and who wears black says false.

i) A says I see 3 whites and 1 black.

ii) B says I see 4 blacks.

iii) E says I see 4 whites.

iv) C says I see 3 blacks and 1 white.

Now Find the caps weared by A, B, C, D and E.

227. There are two women, Kavitha and Shamili and two males Shyam and Aravind, who are musicians. Out of these four one is a Pianist, one Flutist, Violinist and Drummer.

i) Across Aravind beats Pianist.

ii) Across Shyam is not a Flutist.

iii) Kavitha's left is a Pianist.

iv) Shamili's left is not a Drummer. v> Flutist and Drummer are married.

228. $\frac{1}{3}$ rd of the contents of a container evaporated on the 1st day. $\frac{3}{4}$ th of the remaining contents of the container evaporated the second day. What part of the contents of the container are left at the end of the second day?

229. A man covered 28 steps in 30 seconds but he decided to move fast and covered 34 steps in 18 seconds. How many steps are there on the escalator when stationary?

1. Person1: Most of us are satch J.

Person2: Most of us are jute S.

Person3: Two of us are satch J.

Person4: Three of us are jute J.

Person5: I am satch J we have to find who is satch and who is jute. Ans: S: Satch
J:Jute.

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2. Four persons are there to cross a bridge they have one torch light. Person A can cross in 1 min.

Person B can cross in 2 min.

Person C can cross in 5 min.

Person D can cross in 10 min.

They have to cross bridge with in 17 min. At a time only two persons can cross. I. A & B ----> 2.

II. A <---- 1.

III. C & D ----> 10.

IV. B <---- 2.

V A & B ----> 2

Total 17.

230. What is the maximum number of slices can you obtain by cutting a cake with only 4 cuts?

Ans: 16.

231. There are three boxes. In first box, two white balls. In second box, 2 black balls. In third box, 1 white & 1 black ball. The labels on the boxes are not correct. Then you have to open one box and to find the colour of the balls in all boxes.

Ans: Open the box labeled black & white. If white balls are there then the box labeled with white balls contain black balls and labeled with black balls contain one black and one white ball and vice versa, if two black balls are there.

232. There is a 4 inch cube painted on all sides. This is cut into number of 1 inch cubes. What is the number of cubes which have no painted sides?

233. Sam and Mala have a conversation. Sam says I am certainly not over 40. Mala says I am 38 and you are atleast 5 years older than me. Now Sam says you are atleast 39. All the statements by the two are false. How old are they really?

234. Ram singh goes to his office in the city every day from his suburban house. His driver Mangaram drops him at the railway station in the morning and picks him up in the evening. Every evening Ram singh reaches the station at 5 o'clock. Mangaram also

reaches at the same time. One day Ram singh started early from his office and came to the station at 4 o'clock. Not wanting to wait for the car he starts walking home. Mangaram starts at normal time, picks him up on the way and takes him back house, half an hour early. How much time did Ram singh walked?

235. Some people went for vaction. Unfortunately it rained for 13 days when they were there. But whenever it rained in the morning, they had clean afternood and vice versa.

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In all they enjoyed 11 morning and 12 afternoons. How many days did they stay there totally?

236. Geoffrey, Hallmann and Molly attend and interview and give three different statements each.

To make it a little complex. Out of the three statements made by each one, one is false.
Geoffrey says: I am 22 - false

Hallmann is elder than me by one year. Molly is 25

Hallmann says: I am not the youngest -
Geoffrey is 2 years younger than me

Molly is younger than me by one year - false

Molly says: Geoffrey is 23
I am a year younger than Geoffrey

(I don't remember this statement but it is false.)

Answer:
Goeffrey is 22 as Goef states,
And Goef== 23 as Molly states.

Both cannot be true.

Either one has to be true or either one has to be false. Start deriving from this point and u get,

Geoffrey Hallmann Molly Age: 23 25 22

237. There is a cube, which has to be inscribed with the following pair of numbers on opposite sides. 1 and 6, 2 and 4, 3 and 5.

How many different ways can it be done?

238. There's an electric wire running 1 km from the side of a building.

The number of poles in between them is placed in an interval of distance between each other.

If one pole is removed then the distance between each pole becomes $1 \frac{2}{3}$ meters.

Find out how many poles were kept.

239. The time taken to travel in train from Town A to Town B is 5 hours. There are trains starting from both towns at an interval of 1 hour.

How many trains meet in 1 trip?

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Ans : 10 trains check it as trains come from both sides every hour.

240. Shadow went to an Isle where the natives lie and the visitors speak truth. Shadow saw a salesman and wanted to know whether he was a native or a visitor. He did not pose a question directly but asked him indirect instead.

Shadow saw a woman and asked the salesman, "Is that a NATIVE or VISITOR?" .For which the salesman replied, " She is a visitor".

Is the salesman a Native or a Visitor?

Ans :

Since Shadow himself saw him/her as a woman and asked the salesman.

The Salesman replied , "SHE " by which he speaks truth and is a Visitor.

Salesman is a Visitor.

241. Three friends divided some bullets equally.

After all of them shot 4 bullets the total number of bullets remaining is equal to the

bullets each had after division. Find the original number divided.

Ans: 18

(2 marks)

Initially . x

Now $x-4$ Equation is $3x-12 = x$

$x \quad x \quad x-4 \quad x-4$

242. There are 3 societies A, B, C.

A lent cars to B and C as many as they had already.

After some time B gave as many tractors to A and C as many as they have.

After sometime C did the same thing. At the end of this transaction each one of them had 24.

Find the cars each originally had.

Ans: A had 39 cars, B had 21 cars & C had 12 cars

243. The Bulls, Pacers, Lakers and Jazz ran for a contest.

Anup, Sujit, John made the following statements regarding results.

Anup said either Bulls or Jazz will definitely win

Sujit said he is confident that Bulls will not win

John said he is confident that neither Jazz nor Lakers will win

When the result came it was found that only one of the above three had made a correct statement.

Who has made the correct statement and who has won the contest.

Ans: Sujit; Lakers

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244. Five people A, B, C, D, E are related to each other. Four of them make one true statement each as follows.

(i) B is my father's brother.

(ii) E is my mother-in-law.

(iii) C is my son-in-law's brother (iv) A is my brother's wife.

Ans: (i) D (ii) B (iii) E (iv) C 245. Some statements are given below:

L says all of my other four friends have money

M says that P said that exactly one among them has money

N says that L said that precisely two among them have money O says that M said that three of the others have money

P, L and N said that they have money

All the above statements are false..

Who has money & who doesn't have any money?

246. Fifty minutes ago if it was four times as many minutes past three o'clock, how many minutes is it to six o'clock?

Ans: Twenty six minutes.

247. A hotel has 10 storeys. Which floor is above the floor below the floor, below the floor above the floor, below the floor above the fifth.

Ans: The sixth floor.

248. Seven members sat around a table for three days for a conference.

The members' names were Abhishek, Amol, Ankur, Anurag, Bhuwan, Vasu and Vikram.

The meetings were chaired by Vikram.

On the first evening members sat around the table alphabetically.

On the following two nights, Vikram arranged the seatings so that he could have

Abhishek as near to him as possible and absent minded Vasu as far away as he could.

On no evening did any person have sitting next to him a person who had previously been his neighbour. How did Vikram manage to seat everybody to the best advantage

on the second and third evenings?

Ans:

Second evening: Vikram, Ankur, Abhishek, Amol, Vasu, Anurag and Bhuwan. Third evening : Vikram, Anurag, Abhishek, Vasu, Bhuwan, Ankur, Amol.

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249. Two trains start from stations A and B spaced 50 kms apart at the same time and speed.

As the trains start, a bird flies from one train towards the other and on reaching the second train, it flies back to the

first train. This is repeated till the trains collide.

If the speed of the trains is 25 km/h and that of the bird is 100km/h. How much did the bird travel till the collision.

Ans: 100 kms.

250. Four prisoners escape from a prison.

The prisoners, Mr East, Mr West, Mr South, Mr North head towards different directions after escaping. The following information of their escape was supplied:

The escape routes were The North Road, South Road, East Road and West Road. None of the prisoners took the road which was their namesake.

Mr. East did not take the South Road

Mr. West did not take the South Road.

The West Road was not taken by Mr. East

What road did each of the prisoners take to make their escape?

Ans: Mr. East took the North Road Mr. West took the East Road Mr. North took the South Road Mr. South took the West Road.

251. Complete the series: 5, 20, 24, 6, 2, 8, ?

Ans: 12 (as $5 \times 4 = 20$, $20 + 4 = 24$, $24 / 4 = 6$, $6 - 4 = 2$, $2 \times 4 = 8$, $8 + 4 = 12$).

252) A soldier loses his way in a thick jungle. At random he walks from his camp but mathematically in an interesting fashion. First he walks one mile East then half mile to North. Then $\frac{1}{4}$ mile to West, then $\frac{1}{8}$ mile to South and so on making a loop. Finally how far he is from his camp and in which direction.

Ans: Distance travelled in north and south directions $\frac{1}{2} - \frac{1}{8} + \frac{1}{32} - \frac{1}{128} + \frac{1}{512} -$
and so on
 $= \frac{1/2}{(1 - (-1/4))}$

Similarly in east and west directions
 $\frac{1}{4} - \frac{1}{16} + \frac{1}{64} - \frac{1}{256} + \dots$ and so on $= \frac{1/4}{(1 - (-1/4))}$

Add both the answers

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253) How can 1000000000 be written as a product of two factors neither of them containing zeros

Ans: $2^9 \times 5^9$

254) Conversation between two mathematicians:

First : I have three children. The product of their ages is 36.

If you sum their ages, it is exactly same as my neighbour's door number on my left. The second mathematician verifies the door number and says that it is not sufficient. Then the first says " Ok one more clue is that my youngest is really the youngest".

Immediately the second mathematician answers . Can you answer the question asked by the first mathematician?

What are the children's ages? Ans 1,6 and 6

255) Light glows for every 13 seconds . How many times did it glow between 1:57:58 and 3:20:47 am.

Ans : $383 + 1 = 384$

256) 500 men are arranged in an array of 10 rows and 50 columns according to their heights.

Tallest among each row of all are asked to fall out.

And the shortest among them is A.

Similarly after resuming that to their original positions that the shortest among each

column are asked to fall out.

And the tallest among them is B . Now who is taller among A and B ?

Ans A

257) A person with some money spends $\frac{1}{3}$ for cloths, $\frac{1}{5}$ of the remaining for food and $\frac{1}{4}$ of the remaining for travel.

He is left with Rs 100/- . How much did he have with him in the beginning ? Ans: Rs 250/-

258) There are six boxes containing 5 , 7 , 14 , 16 , 18 , 29 balls of either red or blue in colour.

Some boxes contain only red balls and others contain only blue. One sales man sold one box

out of them and then he says " I have the same number of red balls left out as that of blue ".

Which box is the one he sold out ?

Ans: Total no of balls = 89 and $(89-29)/2 = 60/2 = 30$

and also $14 + 16 = 5 + 7 + 18 = 30$

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260) Grass in lawn grows equally thick and in a uniform rate.
It takes 24 days for 70 cows and 60 days for 30 cows to eat the whole of the grass. How many cows are needed to eat the grass in 96 days.?

Ans : 20

g - grass at the beginning

r - rate at which grass grows, per day

y - rate at which one cow eats grass, per day n - no of cows to eat the grass in 96 days

$$g + 24*r = 70 * 24 * y$$

$$g + 60*r = 30 * 60 * y$$

$$g + 96*r = n * 96 * y$$

Solving, n = 20.

261) There are some bees in a garden. 1/5th of them went to a particular flower, 1/3rd went to another flower, 3 times the difference of the above two went to third flower. One was remaining and it was roaming around. How many bees were there? (3 marks)

Ans: 15

262) There was a community in which there were 1000 couples. In that 2/3rd of men who are taller are also heavier and 3/4th of the men who are heavier are also taller and there were 120 women who were both heavier and taller than men. So how many men are both taller and heavier than men?

263) A man drives with constant speed. After some time he sees a milestone with 2-digits. Then he travels for an hour and sees the same 2 digits in reverse order. Then after an hour he sees that the milestone has the same 2 digits with a 0 between them. So what's the man's speed?

Ans: 45 km/hr

264) There were 2 systems A and B. 14 degrees in A is equivalent to 36 in system B, and 133 in A is equivalent to 87 in B. Now what is the temperature where they both are equal?
Ans: 51.25 (conversion $A = \frac{7}{3}B - 70$)

265)
$$\begin{array}{r} X\ Y\ Z\ X\ Y\ Z \\ AB + AB - \text{-----} \text{-----} C\ D\ E\ F\ BG\ A \end{array}$$

find X, Y, Z, G

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266) A woman buys some shoestrings and then 4 times of that she buys packet pins and then 8 times of shoestrings she buys handkerchiefs. She has a bill of Rs. 3.24. She pays for each article as many paise as there are articles (of that particular item). Now what's the number of handkerchiefs?

Ans: 16

267) Ms. Anitha got her salary and she spent half of it in shopping and gave 1 RS to a beggar. After that $\frac{1}{2}$ of the remaining money she spends in a hotel and she gives Rs. 2/- as a tip to waiter. Then $\frac{1}{2}$ of the remaining she spends again and she gives 3 RS as

charity..n after that finally she is left with Rs 1/- when she comes out. Whats the actual money she had?

Rs 42/- (3 marks)

268. A person is cycling in a circular track. At some point he notices that $\frac{1}{5}$ of people in front of him and $\frac{5}{6}$ of people together constitute the total no. of cyclists. Find the total no. of cyclists. Ans: 31

269. Trains leave from New York to Washington every hour on the hour (1:00, 2:00....). Trains leave from Washington to New York every hour on the hour and half hour (1:00, 1:30, 2:00, 2:30....). It takes a train 5 hrs to complete its journey from Washington to New York as well as from New York to Washington. A train leaves from New York to Washington. Find out how many trains it will meet before it reaches Washington.

Ans: 19 or 21 (not sure).

270) A pen, pencil and eraser together cost \$1.00. if $2E < N$, if $N > 2P$, and $P > 4E$ then what a single pen will cost?

271. In a class there are less than 500 students. When it is divided by 3 it gives a whole number. Similarly when it is divided by 4, 5 or 7 gives a whole number. Find the no. of students in the class.

ans: 420

272. Uncle Reuben and Aunt Cynthia came to town to shop. Reuben bought a suit and hat for \$15

Cynthia paid as much as for her hat as Reuben did for his suit then she spent the rest of their

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money for a new dress on the way home Cynthia called Reuben's attention to the fact that his hat cost \$1 more than her dress then she added if we had divided our hat money differently so that

we bought different hats mine costing 1 and 1/2 times cost of yours then we each would have spent the same amount of money in that case said Uncle Reuben "how much would my hat have cost"

Ans : Uncle's hat costs \$6.4 (total money was \$29)

273. Four family names are given and their friends' names are given but not in order. (u hav to find which friend belongs to which family) Each friend prepares salad using 3 different fruits. they are

given apple, cherry, grape, banana., no two friends use the same combination. Various conditions are given and 4 ques asked.

Which fruit did Mandy didn't use?

Who is Flures friend?

Name the fruits common btwn Erica and Stacy?

274. Here is a simple mathematical puzzle set by Longfellow in his own flowery, poetical language.

If 1/5th of a hive of bees flew to the Badamba flower, 1/3rd flew to the Slandbara, 3 times the

difference of these two numbers flew to an arbour, and one bee continued to fly about, attracted on each side by the fragrant Ketaki and Malati, what was the total number of bees?

Ans: 15

275. (don't remember the exact question) a man while sorting files picks up file number one, misses

one, picks up file no. 2, misses two files, and so on...after that he found that he picked up 5% of the

files. How many files were there? Ans: 39

276. A man walks at 4 km/hr on plain, then at 3 km/hr uphill and then returns through the same road at 6 km/hr downhill and at 4 km/hr on the plain. It takes altogether 6 hours. So what distance he covered in one way?

Ans: 12 km

Solution: Let plain road = x km And hill road = y km

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$$? \frac{x}{4} + \frac{y}{3} + \frac{y}{6} + \frac{x}{4} = 6 \quad ? \frac{x}{2} + \frac{y}{2} = 6$$

$$? x + y = 12$$

277. There are some men and some lodges for which the following conditions hold true

—

i) Each lodge is represented by exactly 3 men .

ii) Each man is associated with exactly 2 lodges.

iii) Any pair of lodge has only one man in common. How many men and how many lodges were there?

Ans: 6 men and 4 lodges.

Solution:

i) L1 is represented by M1, M2, M3. L2 is represented by M3, M4, M5. L3 is represented by M1, M4, M6. L4 is represented by M2, M5, M6.

ii) M1 is associated with L1,L3. M2 is associated with L1,L4. M3 is associated with L1,L2. M4 is associated with L2,L3. M5 is associated with L2,L4. M6 is associated with L3,L4. iii) Common between L1 and L2 is only M3. Common between L1 and L3 is only M1. Common between L1 and L4 is only M2. Common between L2 and L3 is only M4. Common between L2 and L4 is only M5. Common between L3 and L4 is only M6. i.e all the given conditions are satisfied.

278. A person sells 2 items for Rs. 12 each. For one he profits 25% and for the other he losses 20%. Altogether did he loss or gain? And by how much?

Ans: He losses by 60 paise.

Solution: Cost price of the item for which he losses = $\text{Rs. } 12 \times 100 / 80 = \text{Rs. } 15$.

Cost price of the item for which he Gains = $\text{Rs. } 12 \times 100 / 125 = \text{Rs } 9.6$.

? Total cost price is Rs. 24.6 and total sell price is Rs. 24.

So altogether he losses by Rs. 0.6.

279. My father's age was x in the year x^2 . I am obviously talking about 20th century. In which year was my father born?

Ans: In the year 1892.

Solution: $x = 44$ as $44^2 = 1936$ and the square of any other integer will not fall in between 1900 and 2000. i.e my father was 44 in the year 1936. ? my father was born in the year 1892.

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280. A man was going by cycle. After going $\frac{2}{3}$ rd of total distance the cycle broke down and he had to complete the journey on foot. At the end he found that he walked twice as long as he was on cycle. How many times the speed of the cycle is as the speed of walking?

Ans: 4 times.

Solution: Let the distance be z km, speed of cycle be x km/hr and walking speed be y km/hr.

Then he covered $\frac{2z}{3}$ km by cycle in $\frac{2z}{3x}$ hr and covered $\frac{z}{3}$ km on foot in $\frac{z}{3y}$ hr.

? according to the question $2 \cdot \frac{2z}{3x} = \frac{z}{3y}$? $x/y = 4$.

281. In a badminton tournament a team is eliminated from the tournament if it losses 2 games. If there are 51 teams then what is the maximum number of games required to select the champion?

Ans: 101

Solution: To eliminate the 50 teams $50 \cdot 2 = 100$ games are required. And the champion team may lose in at most 1 game. ? Max. no. of games required = 101.

282. There are 3 tribes in a Island. Sororean who always speak truth, Nororean who always speak false and Midorean who speak truth and false alternately in either order. From the statements given by A, B and C (who belong to 3 different tribes), three persons from the island, identify who belongs to which tribe.

A : C is Sororean. B is Midorean.

B : A is Nororean. C is Midorean.

C : A is Midorean. I am Sororean.

Ans:

AB C

Midorean Nororean Sororean Solution: Think logically.

283. There are 5 persons A,B,C,D,E . All of them have different occupations and none of them are of same age. Their professions are Consultant, Planner, Engineer, Nutritionist

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and Technician definitely not in the same order. From the following conditions determine whose profession is what?

- i) The consultant is the oldest among them.
- ii) The Technician is not younger than the Planner and the Planner is not younger than the Nutritionist.
- iii) D is not as old as A and also not as young as B, who is not as old as the Engineer and also not as young as C.
- iv) C is not the youngest among them.

Ans: Names are given in descending order of their ages. Consultant Engineer
Technician Planner Nutritionist
A D B C E

Solution: Think logically.

284. 4 persons, Watts, Roger, O'neil and Smith, were eating in a restaurant while Smith was killed by poisoning. During investigation the other 3 persons gave the following statements. They gave one false statement each.

Watts : i) I didn't do it.
ii) O'neil sat beside me.
iii) We had our usual waiter.

Roger : i) Smith was across the table from me. ii) We had a new waiter.
iii) The waiter didn't do it.

O'neil : i) Roger didn't do it.

ii) The waiter has poisoned Smith.

iii) Watts lied when he said that we had our usual waiter.

One among these three persons and the waiter murdered Smith. Who is the murderer?

Ans : O'neil is the murderer.

Solution: Think logically.

I have given the false statements in red and italics.

285 There is a 4 inch cube painted on all sides. This is cut down into of 1 inch cubes.

What is the no of

cubes which have no pointed sides.

Ans: $8 [(n-2)*(n-2)*(n-2)]$ where n is side length of the cube

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286. Find the values of each of the alphabets. N O ON

SO O N

+ M OO N

J U NE Ans: 9326

287. If a clock takes 7seconds to strike 7, how long will the same clock take to strike 10?

Ans: The clock strikes for the first time at the start and takes 7 seconds for 6 intervals-thus for one interval time taken= $7/6$. Therefore, for 10 seconds there are 9 intervals and time taken is $9*7/6=10$ and $1/2$ seconds.

288. Fifty minutes ago if it was four times as many minutes past three o'clock, how many minutes is it to six o'clock?

Ans: Twenty six minutes.

289. Everyday in his business a merchant had to weigh amounts from 1 kg to 121kgs, to the nearest kg.

What are the minimum number of weight required and how heavy should they be?

Ans: .The minimum number is 5 and they should weigh 1,3,9,27 and 81kgs.

290. Ram, Shyam and Gumnaam are friends. Ram is a widower and lives alone and his sister

takes care of him. Shyam is a bachelor and his niece cooks his food and looks after his house. Gumnaam is married to Gita and lives in large

house in the same town. Gita gives the idea that all of them could stay together in the house and share monthly expenses equally.

During their first month of living together, each person contributed Rs.25. At the end of the month, it was found that Rs 92 was the expense so the remaining amount was distributed equally among

everyone. The distribution was such that everyone received a whole number of Rupees. How much did each

person receive? Ans. Rs 2 (Hint: Ram's sister, Shyam's niece and Gumnaam's wife are the same person)

291. Sam and Mala have a conversation.

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- Sam says I am certainly not over 40
- Mala says I am 38 and you are at least 5 years older than me
- Now Sam says you are at least 39

All the statements by the two are false. How old are they really? Ans: Mala = 38 yrs, Sam = 41 yrs.

292. Grass in lawn grows equally thick and in a uniform rate. It takes 24 days for 70 cows and 60 days for 30 cows to eat the whole of the grass. How many cows are needed to eat the grass in 96 days.?

Ans : 20

[Hint: g - grass at the beginning r -rate at which grass grows, per day y - rate at which one cow eats grass, per day n - no of cows to eat the grass in 96 days

$g + 24*r = 70 * 24* y$ $g + 60*r = 30 * 60 * y$ $g + 96*r = n * 96* y$, Solving, $n = 20$.]

293. Three criminals were arrested for shop lifting. However, when interrogated only one told the truth in both his statements, while the other two each told one true statement and one lie. The statements were:

- ALBERT :(a) Chander passed the merchandise. (b)Bruce created the diversion. •
- BRUCE :(a) Albert passed the merchandise. (b)I created the diversion.
- CLIVE :(a) I took the goods out of the shop. (b) Bruce passed them over.

Ans: Albert passed the goods. Bruce created the diversion. Clive took the goods out of the shop.

294. There N stations on a railroad. After adding X stations on the rail route 46 additional tickets have to be printed. Find N and X.

Ans. $x=2$ and $N=11$ (Let initially, $N(N-1) = t$; After adding, $(N+X)(N+X-1) = t+46$; Trail and error method)

295. Complete the Table given below:

Three football teams are there. Given below is the group table. Fill in the x's

Played Won Lost Draw Goals For Goals Against A 22x x x 1

B 2 x x 12 4

C 2 x x x 37

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Ans: The filled table is given below

	Played	Won	Lost	Draw	Goals For	Goals Against
A	22	0	7	1		
B	20	11	2	4		
C	20	1	13	7		

297. Four prisoners escape from a prison. The prisoners, Mr. East, Mr. West, Mr. South, Mr. North head towards different directions after escaping. The following information of their escape was supplied:

- The escape routes were The North Road, South Road, East Road and West Road. • None of the prisoners took the road which was their namesake.
 - Mr. East did not take the South Road
 - Mr. West did not take the South Road.
 - The West Road was not taken by Mr. East
- What road did each of the prisoners take to make their escape?

Ans: Mr. East took the North Road Mr. West took the East Road
Mr. North took the South Road Mr. South took the West Road.

298. A hotel has two wings, the east wing and the west wing. Some east wing rooms but not all have an ocean view. All west wing rooms have a harbor view. The charge for all rooms is identical, except as follows :

- Extra charge for all harbor view rooms on or above the 3rd floor
- Extra charge for all ocean view rooms except those without balcony
- Extra charge for some harbor rooms on the first two floor & some east wing rooms without ocean view but having kitchen facilities.

Which of the following cannot be determined on the basis of the information given:

I. Whether there are any rooms without a balcony for which an extra charge is imposed.

II. Whether any room without a kitchen or a view involves an extra charge.

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III. Whether two extra charges are imposed for any room.

(A) I only (B) II only

(C) III only (D) II and III only

(E) I, II and III Ans: (A)

299. A ship went on a voyage. After it had traveled 180 miles a plane started with 10 times the speed of the ship. Find the distance when they meet from starting point.

Ans: 200miles. (Distance traveled by plane = $\frac{1}{10}$ distance traveled by ship + 180)

301. Father's age is three years more than three times the son's age. After three years, father's age will be ten years more than twice the son's age. What is the father's present age?

Ans: 33 years.

302. Light glows for every 13 seconds . How many times did it glow between 1:57:58 and 3:20:47 am.

Ans : $383 + 1 = 384$

303. There are 20 poles with a constant distance between each pole. A car takes 24 second to reach the 12th pole. How much will it take to reach the last pole.

Ans: 41.45 seconds (Let the distance between two poles = x, Hence $11x:24::19x:?$)

304. A man collects cigarette stubs and makes one full cigarette with every 8 stubs. If he gets 64 stubs how many full cigarettes can he smoke. Ans: $8+1=9$

305. The minute and the hour hand of a watch meet every 65 minutes. How much does the watch lose or gain time and by how much?

Ans: Gains; $5/11$ minutes

306. A survey was taken among 100 people to find their preference of watching T. V. programs. There are 3 channels. Given the no of people who watch

- at least channel 1

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- at least channel 2
- at least channel 3

- no channels at all
- at least channels 1 and 3
- at least channels 1 and 2
- at least channels 2 and 3

Find the no of people who watched all three.

307. Some statements are given below:

- L says all of my other four friends have money
- M says that P said that exactly one among them has money
- N says that L said that precisely two among them have money
- O says that M said that three of the others have money
- P, L and N said that they have money

All the above statement are false. Who has money & who doesn't have any money?

308. 500 men are arranged in an array of 10 rows and 50 columns according to their heights. Tallest among each row of all are asked to fall out. And the shortest among them is A. Similarly after resuming that to

their original positions that the shortest among each column are asked to fall out. And the tallest among them is B. Now who is taller among A and B ?

Ans. A

309. Mr. Mathurs jewels have been stolen from his bank locker. The bank has lockers of 12 people which are arranged in an array of 3 rows and 4 columns like:

12 3 4

5 6 7 8

9 10 11 12

- The locker belonging to JONES was to the right of BLACK'S locker and directly above MILLAR'S.

- BOOTH'S locker was directly above MILLAR'S.
- SMITH'S locker was also above GRAY's (though not directly).
- GREEN'S locker was directly below SMITH'S.
- WILSON'S locker was between that of DAVIS and BOOTH.
- MILLAR'S locker was on the bottom row directly to the right of HERD'S.

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- WHITE'S locker was on the bottom right hand corner in the same column as BOOTH'S. Which box belonged to Mr. Mathurs?

Ans: Box number 9 belongs to Mr.Mathurs.

310. Problem based on sets. 100 ppl. 85 are married, 70 have phone, 75 have house, 60 have car. find ppl having house, car, phone and r married?? easy set problem. i am not sure abt figures but find total ppl who do not have these things and subtract from 100 to get ppl having all these.

ans. 10

311. village and town. in between a hill. a person travels on cycle 8 km uphill and 24 downhill to reach town continuously in 2hrs 50 min. then he comes to village in 4 hrs and 30 min. find his speed uphill and downhill.

ans. uphill 6 downhill 16

312. find wizard's age. his age is 3 times son's age, his father's age is 40 more than twice his age. total of their ages is 1240.

ans. 360

313. there r some steps. i come down 7 steps then see a man at bottom. then he comes up and i go down at same speed(my speed). when 4 steps r remaining for me i find tht man has reached the top.

for my single step downwards he took 2 steps up. find total steps.

ans. 22 steps.

314) One person went to market to purchase three varieties of chocolates. He had purchased 20 items with 20 cents. Fudges are available at 4 cents each, chaco bars are available at 4 for a penny and gum pints are available at 2 a penny. How many of each item he had purchased.

315) There is a five digit number, where the third number is one higher than the sum of first and second digits. Fourth digit is twice of fifth and third digit is twice the fourth. Second digit is five more than the first digit. What is the number

316) A cube, which is painted red on all its sides, is cut into 27 cubes with three straight cuts. Now how many cubes have

i) No red face

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ii)One red face iii)Two red faces iv)Three red faces

317) It is a typical Tap problem. There are two taps, which are used to fill the tank and one tap to empty the tank. First tap fill the tank in 10 min., while the second takes quarter of an hour to fill the tank if both are operated independently. Third tap is capable of emptying the tank in seven and a half minutes. If all the taps are opened simultaneously (when the tank is empty) how long (if ever) will it take for the tank to get filled completely?

318) Ten years before, one is seven years more than the "half the age" of other. Now the bride's age is 30 years. And also one is nine-tenths the age of other. What is groom's present age.

319) Two guys are tossing coin with a bet of \$1 for each game. After some tosses., one guy earned \$3 while the other won three times. How many games do they play.

320) There is one 8 marks analytical question. Which is the easiest puzzle I had ever seen. There are in total eight members in the group. Five members are to be selected from that group. They had given three conditions. We have to answer four multiple-choice questions which are framed based on the above three conditions. In almost all the questions, answer can be found out by eliminating the answers from the choices. Going thru the GRE Barrons analytical section will help. Get the gist of it., rather than trying to solve more and more.

321) There are four friends, who are speaking about the pizza, which one of them ate before. Each one will say one statement and we were given that one of them is lying. We have to find out who ate the pizza. Easy one., no need to worry abt. this.

322) All the above nine puzzles are very easy when compared to this one. This is difficult not because of logic but because of its grammer. The sentence structure is too complicate. This question reminded me of puzzle 127 of sakunthala devi's Puzzles to Puzzle U.

323. there is a 1 km long wire plces on x poles . if the no of poles is reduced by 1 then he distance of wire between each poles increases $1\frac{2}{3}$.how many poles are there intially.\

324. clark ,jones,mason, smith are 4 ppl. there are 4 professions druggists,grocer,butcher,policeman.find out who is who?

1)clark and jones are neighbours and they drive each other to work.

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- 2) jones earns more than mason
- 3) the police man earns more than the druggists and i "think" the grocer.
- 4) the policeman does not have a druggists as a neighbour.
- 5) the butcher walks to work
- 6) policeman does not meet the grocer until he arrests him for committing an offence.

325. A and B write a test

A says " i got a third of the ques. wrong"

B says " i got 5 wrong"

together they got three quarters of the questions correct. how many did a get correct. (5 m)

326. If a die has 1,6 and 3,4 and 2,5 opposite each other how many such dies can be made.

327. There are three boxes , In one box Two white balls , In two box 2 black balls In three box 1 white & 1 black

The lables on the boxes are not correct. Then you have to open one box and to find the colour of the balls in all boxes.

Solution: Open the box labled black & white If white balls are there then the box labled with white balls

contain black balls and labled with black balls contain one black and one white ball and viceversa

if two black balls are there.

328). there are containing 5 , 7 , 14 , 16 , 18 , 29 balls of either red or blue in colour. Some boxes contain only red balls and others contain only blue . One sales man sold one box out of them and then he says " I have the same number of red balls left out as that of blue ".

Which box is the one he sold out ?

Ans : total no of balls = 89 and $(89-29)/2 = 60/2 = 30$

and also $14 + 16 = 5 + 7 + 18 = 30$

329). A chain is broken into three pieces of equal lengths containing 3 links each. It is taken to a blacksmith to join into a single continuous one . How many links are to be opened to make it ? Ans : 2.

330) when the actual time pass 1hr wall clock is 10 min behind it when 1 hr is shown by wall clock, table clock shows 10 min ahead of it when table clock shows 1 hr the alarm clock goes 5min behind it, when alarm clock goes 1 hr wrist watch is 5 min ahead of it

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assuming that all clocks are correct with actual time at 12 noon what will be time shown by wrist watch after 6 hr

ans---5:47:32.5

$(n \times 60) \frac{50}{60} \times \frac{70}{60} \times \frac{55}{60} \times \frac{65}{60}$

331. complete the following a. \$ * * \$ @ * ? ?

@ @ # # \$? ? some what similar like this...but not clear. b. 1 , 3 , 7 , 13 , 21 , __ , 43

Ans : 31

c. 1, 3, 9, __ , 16900

332. A girl took part in a (some) game with many others in a circular closed circuit. After pedaling for several minutes, he found that $\frac{1}{3}$ th of the cyclists ahead of her and $\frac{3}{4}$ th of the cyclists behind him together formed the total no. of participants. How many were participating in the race?

333. OF all pets i have, except 2 all are rabbits OF all pets i have, except 2 all are fish
OF all pets i have, except 2 all are cats

How many rabbits, fish and cats are there?

334. given

carpenter + painter = 1100

painter + electrician = 3200

electrician + plumber = 5100

plumber + mason = 2200

mason + labour = 3000

labour + painter = 1100

find every person's cash? (i dont know the exact amount mentioned above.)

335. out of 30 questions, the three persons A,B & C answered 45 correct answers, B answered 55% of A, B and C together answered 25 % more of what A answered. Find how many answers each answered?

336. Jim,Bud and sam were rounded up by the police yesterday. because one of them was suspected of having robbed the local bank. The three suspects made the following statements under intensive questioning.

Jim: I'm innocent

Bud: I'm innocent

Sam: Bud is the guilty one.

If only one of the statements turned out to be true, who robbed the bank?

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337) There are two containers on a table. A and B . A is half full of wine, while B, which is twice A's size, is onequarter full of wine . Both containers are filled with water and the contents are poured into a

third container C. What portion of container C's mixture is wine ?

338) A wall clock loses 10 minutes every 1 hour. In 1 hour by the wall clock , a table clock gets 10 minutes ahead of it. In 1 hour by the table clock an alarm clock falls 5 minutes behind it. In 1 hour of the alarm clock, a wristwatch gets 5 minutes ahead it. At noon, all 4 timepieces were set correctly. To the nearest minutes, what time will the wrist show when the correct time is 6 p.m. on the same day ?

339) "You see," said Mrs.Murphy,"Paddy is now one and one-third times as old as he was when he took to drink, and little Jimmy, who was forty months old when paddy took to drink is now two years more than half as old as I was when Paddy took to drink , so when little Jimmy is as old as Paddy was when he took to drink.our three ages combined will amount to just one hundred years" How old is little Jimmy?

340)Both the Allens and the Smiths have two young sons under eleven. The name of the boys whose ages rounded off to the nearest year are all different are Arthur, Bert, Carl and David . Taking the ages of the boys only to the nearest year , the following staements are true

- * Arthur is three years younger than his brother
- * Bert is the oldest
- * Carl is half as old as one of the allen boys

- * David is five years older than the younger smith boy
- * the total ages of the boys in each family differ by the same amount today as they did five years ago

How old is each boy and what is each boys family name.

341) In a certain organization there are either men eligible to serve on a eligible to serve on a newly established committee of four. The selection of the members is not an easy matter , however for there are jealousies and attachments among the candidates which prevents a free choice of four committeemen, if you were the president of the organization could you select a committee of four satisfying all these whims?

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- * Ames will serve with anybody
- * Brown won't serve unless Clayton serves
- * Clayton wont serve with Evans
- * Davis wont serve without hughes
- * evans will serve with anybody
- * French wont serve with Davis unless Grant serves too, and wont serve with Clayton unless Davis also serves
- * Grant wont serve with both Brown and Clayton and wont serve with either Ames or Evens
- * Hughes wont serve unless either Brown or French serves and wont serve with Clayton unless Grant serves too and wont serve with both Ames and Evans

342) An artist has exactly seven paintings --- ,T,U,V,W,X,Y, and Z -- from which she must choose exactly five to be in an exhibit. Any combination is acceptable provided it meets the following conditions:

* If T is chosen , X cannot be chosen

* If U is chosen , Y must also be chosen * If V is chosen , X must also be chosen

1) Which one of the following is an acceptable combination of paintings for inclusion in the exhibit?

A. T,U,V,X,Y B. T,U,V,Y,Z C. T,W,X,Y,Z D. U,V,W,Y,Z E. U,V,W,Z,Y

2) If painting T is chosen to be among the paintings included in the exhibit which one of the following cannot be chosen to be among the paintings included in the exhibit?

A. U B. V C. W D. Y E. Z

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3) Which one of the following substitutions can the artist always make without violating restrictions affecting the combination of paintings given that the painting mentioned first was not, and the painting mentioned first was not, and the painting mentioned second was, originally going to be chosen ?

A. T replaces V B. U replaces Y C. V replaces X D. W replaces Y E. Z replaces W

4) If the artist chooses painting V to be included among the paintings in the exhibit, which one of the following must be true of that combination of paintings?

A. T is not chosen B. Y is not chosen C. U is chosen
D. W is chosen

E. Z is chosen

343) Yesterday my mother asked me to buy some stamps. Stamps are available in 2 paise, 7 paise, 10 paise, 15 paise and 20 paise denominations. For three types of stamps I was asked to buy five of each. For the other two types of stamps. I was asked to buy six of each. Unfortunately I forgot which I was supposed to buy five of and which to buy six of

Luckly my mother had given me the exact money required to buy the stamps , Rs. 3.00 and the shopkeeper was able to give me the correct stamps. Which stamps did I buy?

344) Farmer Jones sold a pair of cows for Rs. 210 , On one he made a profit of ten percent and on the other he lost ten percent. Altogether he made a profit of five percent. How many did each cow originally cost him?

345. Meera was playing with her brother using 55 blocks. She gets bored playing and starts arranging the blocks such that the no. of blocks in each row is one less than that in the lower row. Find how many were there

in the bottom most row?

346. Rahul took part in a cycling game with many others in a circular closed circuit. After pedaling for

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several minutes, he found that $\frac{1}{5}$ th of the cyclists ahead of him and $\frac{5}{6}$ th of the cyclists behind him together formed the total no. of participants. How many were participating in the race?

347. Tom wants to catch a hare. He is standing 250 yards south from the hare. The hare starts moving due east.

Tom, instead of moving in the northeast direction, moves in such a way that at every instant,

he is going towards the hare. If speed of Tom is one and one-third times that of the hare, find the distance each traveled before he caught the hare.

348. Two people are playing with a pair of dice. Instead of numbers, the dice have different colors on their sides. The first person wins if the same color appears on both the dice and the second person wins if the

colors are different. The odds of their winning are equal. If the first die has 5 red sides and 1 blue side, find the color(s) on the second one.

349. A company's director said during the board meeting: "The company's income from roads will be sufficient to pay 6% of the entire stock issue, but since we are paying 7.5% interest on the preferred

stock of Rs. 4,000,000 we are able to pay only 5% of the common stock". Find the value of the common stock.

350. Mr. ANYMAN left ANYTOWN by car to attend a wedding at ANYCITY. He had been driving for exactly two hours when the car got punctured. It took his driver exactly ten minutes to change the wheel. In order to play safe

they covered the remaining distance at a speed of 30 mph. Consequently, Mr. ANYMAN was at wedding half an-hour behind schedule. Had the car got the puncture only 30 miles later, I would have been only FIFTEEN

minutes late he told the driver. How far is ANYCITY from ANYTOWN. Ans: 120 miles

351. Alpha, Beta, gamma, delta and epsilon are friends and have birthdays on consecutive days though may not

be in order. Gamma is as many days old to Alpha as Beta is younger to Epsilon. Delta is two days older than Epsilon. Gamma's Birthday is on Wednesday. Tell whose birthday is when.

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Ans:

Alpha: Friday

Beta : Saturday Gamma: Wednesday Delta: Tuesday Epsilon: Thursday

352. The quarter of the time from midnight to present time added to the half of the time from the present to midnight gives the present time. What is the present time?

Ans: 9hrs past 36 minutes AM

353. A man is going to a wedding party. He travels for 2hrs when he gets a puncture. Changing tyres takes 10mins. The rest of the journey he travels at 30 miles/hr. He reaches 30mins behind schedule. He thinks to himself that

if the puncture had occurred 30miles later, he would have been only 15mins late. Find the total distance traveled by the man

354. After world war II three departments did as follows First department gave some tanks to 2nd & 3rd departments equal to the number they are having. Then 2nd department gave some tanks to 1st & 3rd departments equal to

the number they are having. Then 3rd department gave some tanks to 2nd & 1st departments equal to the number they are having. Then each department has 24 tanks. Find the initial number of tanks of each department?

Ans ; A-39 B-21 C-12

355. A girl 'A' told to her friend about the size and color of a snake she has seen in the beach. It is one of the colors brown/black/green and one of the sizes 35/45/55.

If it were not green or if it were not of length 35 it is 55. If it were not black or if it were not of length 45 it is 55. If it were not black or if it were not of length 35 it is 55.

a) What is the color of the snake? b) What is the length of the snake?

Ans: a) brown b) 55

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356. A man was on his way to a marriage in a car with a constant speed. After 2 hours one of the tires is punctured and it took 10 minutes to replace it. After that they traveled with a speed of 30 miles/hr and reached the marriage

30 minutes late to the scheduled time. The driver told that they would be late by 15 minutes only if the 10 minutes was not waste. Find the distance between the two towns?

357. Three clocks were set to true time. First run with the exact time. Second slows one minute/day. Third gains one minute/day. After how many days they will show true time.

358. There were some containers of quantity 1, 3, 4, 5, 6, 12, 15, 22, 24, 38 liters. Each was filled with some liquid except one. The liquids are milk, water and oil. Quantity of each was like this. Water = 2* milk oil = 2* water. Find out which container was empty and containers filled with milk and oil.

359. Two travelers, one with 64 barrels of wine, other with 20 barrels of wine. They don't have enough money to pay duty for the same. First traveler pays 40 francs and gives his 5 barrels, Second traveler gives his 2 barrels but gets 40 francs in exchange. What's value of each barrel, and duty for each barrel?

Ans: Value of each barrel-120 francs, Duty on each-10 francs

360. What is Ann's relation with her husband's mother's only daughter-in-law's sister's husband?

Ans: Brother-in-law

361. Some guy holding a glass of wine in his hand looking around in the room says, "This is same as it was four years ago, how old are your two kids now?" Other guy says "Three now, Pam had one more in the meanwhile." Pam says, "If you multiply their ages, answer is 96 and if you add the ages of first two kids, addition is same as our house number." The first guy says, "You are very smart but that doesn't tell me their ages." Pam says, "It's very simple, just think." What are the ages of three kids?

Ans: 8, 6, 2

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362. A motor cyclist participant of a race says "We drove with the speed of 10 miles an hour one way, but while returning because of less traffic we drove on the same route with 15 miles per hour." What was their average speed in the whole journey?

Ans: 12 miles per hour

363. Given following sequence, find the next term in the series: (i) 0, 2, 4, 6, 8, 12, 12, 20, 16, ____ Ans: 12

(ii) 3, 6, 13, 26, 33, 66, ____ Ans: 53

364. Three customers want haircut and a shave. In a saloon, two barbers operate at same speed. They take quarter of an hour for the haircut and 5 mins for the shave. How quickly can they finish the haircut and shave of these three customers?

Ans: 30 minutes

365. A shopkeeper likes to arrange and rearrange his collection of stamps. He arranges them sometimes in pair, sometimes in bundle of three, sometimes in bundle of fours, occasionally in bundle of fives and sixes. Every time he's left with one stamp in hand after arrangement in bundles. But if he arranges in the bundle of seven, he's not left with any stamp. How many stamps does a shopkeeper have?

Ans: 301

366. Three different types of objects in a bucket. How many times does one need to select object from the bucket to get atleast 3 objects of the same type?

Ans: 7

367). A stamp collector has the habit to arrange or rearrange the stamps accordingly. while doing this he some times keeps the stamps in pairs, or in group of 3 or in 4 or in or in 6 and realises that in any case he is left with 1 stamp and when he arranges them in groups of 7 no stamps remain. what is the number of stamps he has?

368). amy while walkin down the street with her daughter, meets her husband's mother's only duaghter in law's sister's husband. how is the related to her?

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369). there are 3 customers who want to take a hair cut and shave. there are 2 barbers who take one quarter of an hour for a hair cut, and 5 minutes for a shave. both the barbers want to finish off and go quickly to their homes. in what time can it be done.

370). we travelled to a place at the rate of 10 miles per hour and of course returned the same way, but owing to less traffic at the rate of 15 miles per hour. what was our relative speed.

371). there are 3 types of apples in a box. what is the number of apples we should take so that we end up with 3 apples of one kind.

372). a). 3, 6, 13, 26, 33, 66, _ b). 0, 1, 2, 13, 6, 33, 12, 63, 20, 103, _

373. Each alphabet A, B, ..., Z is assigned a constant. $A=1, B=2, C=3^2, D=4^3$ and so on. Each letter is assigned a value - the position of that letter raised to the value of preceding alphabet. ($C = 3^B, D = 4^C$ and so on)

Compute the numerical value of $(X-A)(X-B)(X-C) \dots (X-Y)(X-Z)$.

374. Mr. T has a wrong weighing pan. One arm is lengthier than the other. 1 kilogram on the left balances 8 melons on the right. 1 kilogram on the right balances 2 melons on the left. If all melons are equal in weight, what is the weight of a single melon?

375. In a game of dice, 2 dice are thrown at each turn. The score at each turn is taken as the product of the numbers on 2 dice. There were five turns (rolls). The second roll is 1 less than the first, and (like this ... the relationship between the third and second, third and fourth, fourth and fifth) were given. Find the score in the first roll, second roll, third roll, fourth roll. (Just giving an idea about the question and don't know the exact relationships).

PURPLE:these are always poisonous if red are. YELLOW:six months in a year they are safe.

GREEN: always safe to consume if purple are poisonous. RED:six months in a year poisonous.

The colors are colors of mushrooms available.AT this time which one is safe to consume?

G: I am 22 M = G+ 2 H = G- 1

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H: I am not the youngest. difference between M & H is 3 G is 25.

M: M is younger than G. G = 23.

H = G+2.

Mr.G,Mr.M,Mr.H made only one statement false.

Find the ages of all three.

(I am not sure abt the statements jus chk it out with others)

376 Matrix problem repeated from prev paper

there are 3 males A,B,C and 3 females X,Y,W. they played 18 games of golf altogether.

1. A scored 94
2. X scored 106
3. Y scored 102.
4. Z scored 100.
5. B and C scored 96 and 98 and don't no who's score what??
6. A's wife beats C's wife.

7. there are two couples whose sum of scores is same.

Determine who's wife is who and scores of B and C.

377. A girl had several dollars with her. she went out for shopping and spent half of them in shopping mall, being generous she had given 1 dollar to the beggar. After that she went for lunch and spent the half of the remaining and gave 2 dollars as tip to the waiter. Then she went to watch a movie and spent the half of remaining dollars and gave autorikshaw-wala 3 dollars. This left her with only 1 dollar. How many dollars did she have with her at the beginning.

378. A person says that his son is 5 times as old as his daughter and his wife is 5 times older than his son and he is twice the age of his wife. The sum total of all the ages equals the age of the grand mother who celebrated her 81st birthday today. How old was his son?

379. A bargain hunter bought some plates for \$ 1.30 from a sale on Saturday, where price 2 was marked off at each article. On Monday she went to return them at regular prices, and bought some cups and saucers from that much amount of money only.

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the normal price of plate were equal to the price of 'one cup and one saucer'. In total she bought 16 items more than previous. saucers were only of 3 cents hence she brought 10 saucers more than the cups, How many cups and saucers she bought and at what price?

380. A jeweller prepared a window display each displaying 3 of the 7 gems at a time. They were methyst, opal, sapphire, emerald, ruby and garnet. Displayed according to the following conditions:-

1 A should always be displayed on the left window and D on the right.

2 Ruby should never come with any of D or G. 3. E should always be with S.

then some 4 questions were asked on this. easy #1 which combination is appropriate?

AOS;ADR;AES(ans).

#2 which condition is correct in the right window?

#3 Ruby can be displayed with following other two?

#4 S can be displayed with the following other two on left side window?

381. Racing competition. Participants were from 3 tribes Sonorean-always says truth
Midorean-alternatively says T and F ,not with any particular start. Nororean-always
False

A says-1. C obstructed me at the last moment ,which caused me to lose the race. 2. C
always speak true
3. c is the winner.

B says - 1. A is the winner. 2. c says false always.

C says- 1.B won the Race
2. I didn't caused any obstruction to A at the last time.

Identify the tribes of each.

382. A boss tells $\frac{1}{6}$ th of his life in child hood, $\frac{1}{12}$ of his in youth and $\frac{1}{7}$ of his in
bachelor, five years after his election
a son was born whom was died four years ago at half his final age. find the boss age.

. ANS.:74 the solution $\frac{a}{6} + \frac{a}{12} + \frac{a}{7} + 5 \dots$

383. Two thieves went to the museum to stole the diamonds first thief stole half of them
and while going he took another two and left. Second, third and fourth did the same and
there was zero diamonds at the end. How many diamonds initially at the beginning?

Similar to Q. No. 193 Stolen Mangoes from Shakuntala Devi - More Puzzles Ans: 79

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384. A, B, C are the husbands and D, E, F are their wives not in that order. They are playing the Golf following these conditions. D, E, F and B scores are as follows 106, 102, 100 and 94. A and C scores are 98 and 96 not in that order as their names are not displayed. Two couples get the same score. B wife beat the A wife list out the wives names and the scores they got.

Ans:

Hus Wife Score Total

A F 98 102 200 100 198 B D 94 106 200 106 200 C E 96 100 96 102 198

385. A woman with dollar bills went to the shopping she spent half of the money she had for shopping as she was so kind she gave one dollar to the beggar. She went to the hotel and spent half of the remaining and she gave 2 dollars to the waiter, then she bought some goods with half of the remaining and she gave 3 dollars to the receptionist. How much money she had in the beginning?

ans: 42

come in the reverse order $1+3=4$ and twice of it $8+2=10$ and twice of it $20+1=21$ and twice of it 42.

386. A conductor in the bus asked the man how old the boy is. The man replied that my son is five times older than my daughter and my wife is five times older than my son and I am twice older than my wife and our ages summed up to my grandmother whose age is 81 years. Can you tell me the son's age?

ans: 5 years

$$x + 5x + 25x + 50x = 81$$

$$81x = 81$$

$x = 1$ therefore son's age is 5 years old

387. Find out who is oldest and who is youngest from the following statements... a) either A or B is the oldest

b) either C is the oldest or B is the youngest.

ans: A is the oldest and B is the Youngest

388. One boy tells three people to guess mule color. Number one says it's not black, number two says it's either brown or grey, number three says it's brown.

..the boy then says one is atleast lying ans atleast telling truth...finf mule color ans grey?

389. 2 men take turns walking and riding one horse that they share...walking speed

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4km/hr..riding speed 12km/hr..one rides for some time and ties horse for the other walking fellow and continues walking.....they keep going on like this alternately ..find time that the horse rests

390. 7 ppl have holidays on 7 diff days...and they give conditions like A's hol is 3 days before B etc etc...we have to find the days on which they take holiday

5.6 subjects 3 ppl teach 2 each...some crazy conditions and we gotta find the subject for each..i cant really recall clearly so why confuse u guys

391. A Lady (say L) is a philanthropist. she goes to a restaurent, orders food and pays half the amount she has and another doller to a waiter as tip. she then goes to a mall, does some purchases and pays half the amount left and another 2 dollers to a begger outside. At last she goes to a book store, takes some books and pays half the amount left and another 3 dollers to a begger outside. she then checks that she only had a doller left to her. How much money she had initially? ANs. 42 \$

392. Three couples are playing golf together. The men are E, B & T while women are M G & H. they play 8 rounds.

M, G, H & E score 106, 102, 100, 94 respectively. while B & T scored either 96 or 98 as it was unresolved due

to error at scoreboard. When finally resolved they found that two of the couples scored same. It is given that-

E's wife scored greater than B's wife. Who's whose wife & how much the men scored each?

393. A lady buys some plates in 130\$ with 2\$ off every item. she then returns the plates for the same amount next day to exchange them for some cups & saucers. Each saucer costs only 3\$ each and the no. of saucers is 10 more than cups. Altogether she takes 16 more items than before. If she had to buy only cups, how many of them she could have been taken home on the first day?

394. Impressed by admiration of the boy by stranger, the father said "My son is five times as old as my daughter and my wife is five times as old as my son. I'm double the age of my wife and my grandmother is as old as the sum of ages of all of us and she is celebrating her 81st birthday." what is the age of the boy?

ANS. 5 yrs

395. A, B & C participate in a race & one of them wins. They belong to

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three communities-M, N,

O. O always speak the truth, N always lie and M alternate. Each of A, B & C belongs to one community.

A SAYS:

1. I would have won the race if C had not interfered me at the last movement.
2. C always speaks truth.
3. C is the winner.

B SAYS:

1. A wins the race. 2. C is not a 'N'.

C SAYS:

1. I hadn't interfered with A at the last movement. 2. B wins the race.

Tell, who's who?

396. Harry is a friend of Axy and Amy. Two statements are given about them.

1. if one of Axy and Amy is oldest then another is youngest.

2. Either Harry is the oldest or Amy is the youngest. Who is the oldest?

ANS. Axy

397. sons age is 5 times daughters. mother is five times son. father is 5 times wife. Total of all age is Grandpas who is celebrating 81st B`day.

Ans:-5 yrs

398) One woman buys plates worth 1.30\$ at 2cent discount each plate. Then she exchanged the plates

for sausers & bowl where one bowl & one sausers costs equal to one plate. no of sausers which costs 3 cent

is 10 more than bowl. no of saucers & bowl is 16 more than no of plates. Ans:-10 Plates

399. "One-sixth of my life", said my boss, "I spent as a child, next one-twelfth as an old boy, one-seventh & 5

more years in politics & socialization. This brought me upto when Jimmy born. Jimmy was elected for the

governer four years ago, when he was half my present age."

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How old is my boss?

ANS.: 84 yrs.

(However, I overlooked that 'one-seventh' part, & got

the answer 36 - a wrong answer.) ***** J =

$(B/2) + 4$

$(B/6) + (B/12) + (B/7) + 5 + J = B$

=> B = 84 *****

401. A Couple decided to travel a north country side .so they decide to travel a minimum amount on car the first day and the second and subsequent day a distance of 20 miles .If they travel a total amount of 1080 miles. Find he distance traveled on the 4th day and the 9 day.

402. A card board of $34 * 14$ has to be attached to a wooden box and a total of 35 pins are to be used on the each side of the card box. Find the total number of pins used .

403. During a Pizza buffet where A eats more times 2.4 than B, and B eats 6 times less than C.find the leat number of times all the three has to eat.

404. Last Year my cousin came to my place and we played a game where the loosing one has to give one choclate to the person who won the game .At the end of the vacation,i.e the day my cousin was leaving she counted number of games that i won an she won.At last she gave me a total of 8 choclates even though she won about 12 games.

Find the number of games that we played.

405. A tree on first day grows $1/2$ of its size second day $1/3$ rd of its size on the previous day similarly than $1/4$ th and so on.u have to calculate after how many days the tree will be 100 times of its original size.

ans -198 days

406. three person are there let A B C one always tell truth one always lie and one sometimes tell truth

they are standing in straight line the first person who is seniormost and always tells truth tells in middle A is standing the middle one says C is in the third position the last one says B is in second position ie middle

407. A,B,C,D and E are juniors and F,G,H,I are seniors you have to make three groups each containing three persons such that in each group one senior is there and some other conditions which I can't recall exactly but was like that if this person will be in group then this can't be in the same group.

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408. there are 100 teams in a football knockout tournament how many matches should be held to get the winner answer is 99 i.e. one less than the no. of teams bcoz in every match one team goes out

409. A car traveling with uniform speed. There are 15 poles. A car travels from 1 to 10th pole in 10 seconds. the poles are equally spaced. then how many seconds it takes to reach the 15th pole? (4)

410. A boy jumps to the river from the bridge. He swims opposite direction of the stream. After 1000 yards he noted that his hat was fallen at the bridge. Then he goes to take the hat. He didn't change his speed. What is the velocity of stream? (4)

411. Uncle A bought a Hat & Suit for Rs. 15. Aunt B bought a Suit with as much as cost of uncle's Hat. Then remaining cost he bought Dresses. Dresses cost is one rupee more than his hat's cost. Then she told him his hat's cost is $1\frac{1}{2}$ cost of

her hat. They spend equal amount on their purchase.

-
- Then uncle said how much is the cost of Hat.
-
-

- How much they spend altogether ? (4)
-

412. There are 17 brown ties, 13 red ties, 9 green ties, 5 blue ties and 2 white ties. Then a man takes a tie.

so, how many times he at least take tie to get the 2 ties In same colour? (6)

413. Mrs. Barbinger bought some plates on Saturday for \$1.30, when everything was being sold two cents below the regular price. She exchanged those plates on Monday, at their regular price, for cups & saucers.

Cost of one plate equals cost of one plate & one saucer. She returned home with 16 more articles than before. Since, saucers cost only 3 cents each, she bought 10 more saucers than cups.

The puzzle is, how many cups could she have bought on Saturday, for \$1.30?

ANS.: 13 cups ***** On Monday:

cup = 12 cents, saucer = 3 cents, plate = 15 cents

On Saturday:

cup = 10 cents, saucer = 1 cent, plate = 13 cents

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414. Mr and Mrs ABC purchase suit and hats for 15 Rs. then from remaining money Mrs. ABC purchase A dress. She said " My dress cost is more than 1 Rs from your

hat's cost. she also added "if we divide our money and then purchase and cost of my hat is 3 and 1/2 times yours hat then we had spend equal money"

a. " if that " condition fallows what is price of his hat? b. Total amount spend ?

ans. hat= 6 Rs , Total = 22 Rs. (not sure)

415. My rack contains 8 Red colour ties, 13 violate colour ties, 10 Blue colour ties, 5 Pink colour ties, 4 green colour ties. If electricity gone and i want at least two ties of same colour then how many ties i should take out from my rack?

Ans : 6 ties.

416. Two trains leaving from two station 50 miles away from each other with costant speed of 60 miles per hour, approaches towards each other on diffrent tracks. if lenght of each train is 1/6 mile. when they meet How much time they need to pass each other totally?

ANS : 10 sec. (not sure)

417. All handsome, fair skinned, muscular, lean, employed, and rich men are tall. All handsome men are fair skinned.

Some muscular men are handsome.

Some muscular men are not fair skinned.

All lean men are muscular.

No lean man is handsome.

No fair skinned man who is not handsome is rich.

All tall men who are neither fair skinned nor muscular are employed.

1. pramod is not fair skinned. Which of the following must be true ? a) pramod is employed

b) if pramod is muscular, he is neither handsome nor lean

c) if pramod is tall, he is employed or muscular.

d) if pramod is not employed, he is muscular.

e) if pramod is tall, he may be muscular or handsome, but not both. 2. which must be false if the information given is true ?

- a) no lean men are fair skinned.
- b) some fair skinned are lean.
- c) some rich men are both fair skinned and muscular. d) some tall men are neither fair skinned nor employed e) some rich men are lean

3. which of the following can be deduced from the information given ? a) all rich men are handsome
b) some rich men are handsome

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- c) some rich men are employed
- d) some rich men are muscular
- e) all rich men are handsome, muscular, or employed

4. which cannot be shown to be true or false on the basis of the information given ? I. No fair skinned or muscular man is employed

II. Some muscular men are fair skinned but not handsome III. No fair skinned man both handsome and lean

- a) I only b) II only c) III only d) I and II e) II and III

418 In Mulund, the shoe store is closed every Monday, the boutique is closed every Tuesday, the grocery store is closed every Thursday and the bank is open only on Monday, Wednesday and Friday. Everything is closed on Sunday. One day A, B, C and D went shopping together, each with a different place to go. They made the following statements:

A D and I wanted to go earlier in the week but there wasn't day when we could both take care of our errands.

B I did not want to come today but tomorrow I will not be able to do what I want to do.

C I could have gone yesterday or the day before just as well as today. D Either yesterday or tomorrow would have suited me.

Which place did each person visit ?

419 The Novice hockey tournaments are on for beginners. Just three teams are in the league, and each plays the other two teams just once. Only part of the information appears in the result chart, which is given below.

Team Games Won Lost Tied Goals For Goals against

A2 10 B21 12 C2

The scoring pattern in the tournament is as follows:

Two points are awarded to the winning team. In case of a tie, both teams are awarded one point, so the total points in the standings should always equal the total number of games played (since each game played is counted as one for each of the two participating teams). Of course, total goals scored for and goals scored against must be the same, since every goal scored for one team is scored against another.

The games are played in the following order: Game 1: A Vs B; Game 2: A Vs C; Game B Vs C

Can you determine the score of each of the above games ?

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420 A recent murder case centered around the six men, clam, flip, gront, herm, mast, and walt. In one order or another these man were the victim, the murderer, the witness,

the police, the judge, and the hangman. The facts of the case were simple. The victim had died instantly from the effect of gunshot wound inflicted a shot. After a lengthy trial the murderer was convicted, sentenced to death, and hanged.

V Mast knew both the victim and the murderer.

v In court the judge asked clam his account of the shooting.

V Walt was the last of the six to see flip alive.

V The police testified that he picked up gront near the place where the body was found.

V Herm and walt never met.

What role did each of the following play in this melodrama ?

a) Murderer

b) Victim

c) Judge

d) Witness

421.A alone can do a work in 6 days B alone can do in 8 days with help of c they finished the work in 3 days.If the agreed sum is 640 what is the share of c.(refer r.s agarwal)

422) A boy goes to school from his house.on one fourth oh his way to school, he crosses a machinery station. And on one third of his way to school, he crosses a Railway station. He crossed the machinery station at 7:30 and he crosses the Railway station at 7:35. When does he leave the house & when does he reach the school ? (5M)

423.A drives a car four times a lap 10,20 30,60 kmph what is the average speed.

424.speed of boat in still water 10 km,if speed up stream is 24 km and speed down stream is 16 what is speed of the river.

425.If grand father age is sum all the three grand childern whos age r in equal interval what is the age of the grand father?

426.In a grass field if 40 cow could eat for 40 days.The same grass field can feed 30 cows for 60 days.how long will it feed 20 cows?

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427) An Eraser, Pencil, Notebook together costs \$1.00. Notebook costs more than the cost of 2 Pencils. 3 Pencil costs more than 4 Erasers. 3 Erasers costs more than a Notebook.

How much does a pencil costs? (5M)

428) Four persons A,B,C,D were there. All were of different weights. All Four gave a statement. Among the four statements only the person who is lightest in weight of all others gave a true statement.

A Says : B is heavier than D.

B Says : A is heavier than C.

C Says : I am heavier than D.

D Says : C is heavier than B.

Find the lightest & List the persons in ascending order according to their weights. (5M)

428. A man was travelling to a place 30 miles away from starting point. he was speeding at 60 miles/hr. but when he came back, his car got breakdown and half an hour was wasted in reparing that. altogether he took 1 hr for return journey. Find the avg. speed of the whole journey.

429. I'M NOT VERY SURE REGARDING THIS QUESTION.

A detective was assigned to generate a code using 4 digits, so that no one could break it. he knew that if the code starts with 0,5 or 7 it will be cracked. so how many numbers can be formed using 4 digits.

430. A cow was standing on a bridge, 5feet away from the middle of the bridge. suddenly a lightning express with 90 miles/hr was coming towards the bridge from nearest end of the cow. seeeing this the cow ran towards the express and managed to escape when the train is one feet away from the bridge. if it would have ran to opposite direction(ie away from train) it would have been hit the train one ft away from the end of the bridge. Calculate the length of bridge.

431. there are 3 towns attacked by 3 dragons-x,y,z. Number of days x attack a town is equal to number of days y attacking another town. Number of days x attack is equal to half the square root of number of days z attacking a town. number of days y attacking

the town is twice the square root of z . calculate how much days the curse of each dragon be.

432. A town have a population of 500000 and 42% of males and 28% of females are married to same town. find the total number of males

433. A and B came back home after their exam and their father asked them about the test.

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A replied-- $\frac{1}{3}$ rd of my answers were wrong

B replied-- 5 of my answers were wrong but together we got $\frac{3}{4}$ of answers right. How many questions were there for the exam?

434) We are given 100 pieces of a puzzle. If fixing two components together is counted as 1 move (a component can be one piece or an already fixed set of pieces), how many moves do we need to fix the entire puzzle.

Ans: 18

435) This problem has appeared b4. 4 kids from 2 families Gupta and sharma... their names are Praveen, Pra... blah blah...and some relation... which family and what are their ages..

Ans: Sinhas - 11(praveen)

Sinhas - 5(lalit) Gupta - 10(pratap) Gupta - 7 (rajesh)

436) This was one hell of a long problem - But it has appeared before.. Two girlz after one guy (sue, swe and sam i think)..Sue first asks his house no... he replies with two statements (second is false) so she goes to the wrong house... blah blah.. same thing happens with the other gal

What was the house number of sue and sam Ans: 20 and 24

437) A complex statement - about an aeroplane coming late. "The boy says if it was 6 hours later, the waiting time would be $\frac{1}{5}$ th of the time if the plane had come 2 hours earlier instead. the plane is supposed to come at midnight

Ans 11.00 a.m

438) There are 4 statements and 4 guys (Dave, Gus, someone else and one more someone else) - sorry my memory is rotten! Anyway now these guys make 4 statements abt. who committed the crime. We need to find out who did it if (i) all but one are saying false and (ii) all but one are saying true

Ans: (i)archie(ii) tony

439) A kid goes to a bank with a cheque... Comes back and says he spent 35 cents .. his mom says you have brought back twice what u ver supposed to get. What happened is the novice bank clerk gave dollars for cents and vice-versa(quote silly) anyway... What was the actual amount??

Ans: don't know...

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440. John had decided to divide his RS.1000/- for his four children according to their ages. The elder child should be a RS.20/- extra for each than his younger child . What will be the share of Mahesh who is the youngest?[3 marks]

441. One side of the measuring arm was longer than the other side .If 3 pyramid width was placed in longer side it is equal to 2 cube width in the shorter arm.If 8 pyramid width was placed in longer arm then it is equal to 6 cube width. Let 1 pyramid width is equal to 10kg.What is the wgt of cube width?

442. A,B,C,D are four girls who have 1,2,3,4 apples with them respectively.If E have apples equal to his sister,F have twice the apples as his sister,G have thrice the apples

than his sister and I have four times the apples than my sister. All together we have 32 apples. A, B, C, D are the sisters of whom and whom?

443. Andy, Brian, Cedric, Dave are architects, barber, case worker and dentist but not in the order.

* Architect will have the letter 'r' in his name.

* At least one of the person should have coincidence in the first letter of their name and their occupation but not all [eg: andy-architect]

* Barber and dentist share their name by only one letter. What is the occupation of each person?

444. There are 100 bulbs connected to 100 switches

-
- 1 to 100 all the switches are put ON.
-
-
- Only even numbers of switches are used ie, ON means OFF and viceversa
-
-
- Similarly odd numbers of switches are done
-
-
- Switch number which is divisible by 3 are done similarly
-
-
- Switch number which are divisible by 4 are done similarly. This process is done upto 100 divisibles.
- When do all the bulbs are in ON and OFF condition? [8 marks]
-

- 445. A man wrote his "will" accordingly the money was also shared between his car driver, 5 sons and 5 daughters. First he gave one rupee to his car driver, remaining $\frac{1}{5}$ of the money is given to his 1st son. Again he gave one to his car driver and remaining $\frac{1}{5}$ of the money is given to his 2nd son, continuing the process until 5 sons are completed. After that the remaining money is divided between his 5 daughters. What was total amount of money?
-

446. 4 people identified a criminal and their statements are:

A: Eyes were blue, height was tall and he wore a hat & a vest.

B: Eyes were dark, height was short and he wore a hat & a vest

C: Eyes were green, height was medium and he wore hat & a tie.

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D: Eyes were grey, height was tall and he wore a rain coat and a hat.

Everyone said only one correct identify other two were untrue. How can the criminal be identified?

4470. A wall clock was slow by 10 minutes. According to the wall clock, a table clock was 10 minutes ahead of it. According to the table clock an alarm clock was 5 minutes behind and according to the alarm clock wrist watch was 5 minutes fast. At noon all the clocks were adjusted. What will be the time at 6 P.M wrist watch?

448. Professor Kittredge's literature seminar includes students with varied tastes

in poetry. All those in the seminar who enjoy the poetry of Browning also enjoy the poetry of Eliot. Those who enjoy the poetry of Eliot despise the poetry of Coleridge. Some of those who enjoy the poetry of Eliot also enjoy the poetry of Auden. All of those who enjoy the poetry of Coleridge also enjoy the poetry of Donne. Some of those who enjoy the poetry of Auden also despise the poetry of Coleridge. All of those who enjoy the poetry of Donne also enjoy the poetry of Frost.

i.

Miss Garfield enjoys the poetry of Donne. Which of the following must be true?

(A) she may or may not enjoy the poetry of Coleridge.

(B) She does not enjoy the poetry of Browning.

(C) She does not enjoy the poetry of Eliot.

(D) She enjoys the poetry of Coleridge.

ii.

Mr. Huxtable enjoys the poetry of Browning. He may also enjoy any of the following poets except

(A) Auden.

(B) Coleridge

(C) Donne

(D) Eliot

(E) Frost

iii.

Miss Inaguchi enjoys the poetry of Coleridge. Which of the following must be false?

(A) she does not enjoy the poetry of Auden.

(B) She enjoys the poetry of Donne.

(C) She enjoys the poetry of Frost.

(D) She does not enjoy the poetry of Browning.

(E) She may enjoy the poetry of Eliot.

iv.

Based on the information provided, which of the following statements concerning

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the members of the seminar must be true?

(A) All the those who enjoy the poetry of eliot also enjoy the poetry of Browning.

(B) None of those who despise the poetry of Frost enjoy the poetry of Auden.

(C) Some of those who enjoy the poetry of Auden despise the poetry of Coleridge.

(D) None of those who enjoy the poetry of Browning despise the poetry of Donne.

(E) Some of those who enjoys the poetry of Frost despise the poetry of Donne.

a.Rimmie wears a hat only if goerge wears a tie. b.George wears a scarf only if Johnie wears a tie. c.Vickie wears a googles only if Rimmie wears a hat. d,e,f,g,h

some what like this there are 8 statements,from that we have to determine who wears what.

449. 8 Kigs and 14 Ligs can do 510 tors of work in10days. 13 Kigs and 6 Ligs can do 484 tors of work in 12 days.

Then find work done by Kigs and Ligs individually in tors/hr?

450. There is a 3 digit number. 3rd number is the square root of the 1st digit. 2nd digit is the sum of 1st and 3rd. And that number is divisible by 2,3,6,7. What is that number?

451. A boy is playing a game. He took totally 55 blocks and kept like placing some x number on the ground, next one less than that above those blocks like that till the topmost one is one, like:

x xx

xx x xxx x x xx xx

x xx xxx

x x x xxx x x x x xxx xx x x x x xx xxx

x x x x x x xx x x

(They didn't give this picture, but my explanation is not clear, that's I gave u this picture)
the question is how many blocks are there at the base level?

452. There are 100 nations competing for a world-cup.

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The board decided to make Knock-out series.

How many matches to be played for deciding the world champion?

453. There is a log weighing 30kgs. The log having twice thickness and twice short as first one will weigh how much ??

454. There is a truck which should reach some place at 11 o'clock, if it travels with 30 mph it reaches 1 hour before, if it travels with 20 mph it reaches 1 hour late. What is the distance it must be travelled

and what is the speed it must maintain to reach at exact time? ans: 120 miles and 24 mph

455. There is a square cabbage patch. He told his sister that I have a larger patch than last year and hence 211 more cabbages this year. Then how many cabbages I have this year.?

Ans: $106 \times 106 = 11236$

456. There are two clocks one runs 1min/hrs faster and other 1min/hr slower when will the two clocks have time difference of 1 hr :
ans : 30hrs

457. I take a taxi whose no is 3 digit no. it is not divisible by 2,3,5,7 but divisible by 11 it is the smallest no possible:

ans : 121

458. A man brought some watermelons to town and sold them. he sold $\frac{1}{2}$ more than $\frac{1}{2}$ of what he brought and e was left with one melon. how many melons did he bring to Town? ans: 3

459. When u reverse the digits of age of father u will get the age of son. one year ago the age of father was twice that of son's age. what are the current ages of father and son?

ans: 73 & 37

460. There will be four friends ,one is doctor, one is lawyer... they are having four cars one ferrari, corvette there were some conditions and we were suppose to find what is profession of each one and what car they own. this was the one for 8 marks.

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461. There is a circular ring in which there are 12 black mice and one white mice . a cat walks circularly in the ring and eats every 12th mice. where should the cat start so that the white mice is the last one to be eaten by cat?

ans: if the cat moves circularly it has to start from the 11th mice (clockwise) w.r.t. to white one.

462. A farmer grows four types of crops say W,X,Y & Z . two conditions were given: 1. If the farmer grows crop W in a year then also grows X that year
2. If the farmer grows crop Z one year then he never grows crop Y next year

There were 6 choices among which we were suppose to find one correct one which does not violate the two conditions the choices were some thing like:(first pair denotes crops grown first year and second after semicolon represents crops grown next year)
W,X ; X,Z (this one is a valid one)

Ans: I don't remember the choices but the ans was option C

463. In a class there are less than 500 students . when it is divided by 3 it gives a whole number. Similarly when it is divided by 4,5 or 7 gives a whole number. find the no. of students in the class ans: 420

464. There are three types of birds A,B & C . A costs 5pounds, B costs 3 Pounds and C costs $\frac{1}{3}$ of a pound. find the no. of A,B &C such that u will get 100 birds for 100 pounds. (I think we were suppose to find 3 answers since there were 3 rows in the answer) ans: A : 4 B : 18 C: 78

465. There are 5 persons who have won top five places in an event in Olympics . one of them asks all the five regarding thier positions, they reply as

a: "i am not the last" b: "c is in third place" c: "E is behind A"
d: "B is in first place"

e: "D is not the first"

The persons who have won gold and silver have lied find the positions in

order(format: name of first, name of second,...) ans: B,D,E,A,C

466. A coffee seller has two types of coffee Brand A costing 5 bits per pound and Brand B costing 3 bits per pound. he mixes two brands to get a 40 pound mixture. he sold this at 6 bits per pound. the seller gets a profit of $33\frac{1}{2}$ percent. how much he has used Brand A in the mixture? ans: 30 pounds

467. You are given with two identical iron bars. one of them is magnetized and the other is not. u are suppose to find which one is magnetized. u are not suppose to use any other thing.

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my ans: first time i told that i will suspend the bars freely. but then they told me that i am not suppose to use any external help. i took some time and then realized that a magnetic bar in the middle repels towards the end . i told that place one of the bars horizontal & then move the other one perpendicularly to it . if it repels towards any of ends then the horizontal one is magnetized if it attracts then is not. They were convinced

468: What is the result of $(x-a)(x-b)(x-c) \dots (x-y)(x-z)$?

my ans: i told that since there is a term $(x-x)$ the answer is zero. They told ok. finally they asked me whether i have any questions to them i asked them what is the duration of training and what is field which i will be working on if i get selected.

Anyone looking for infi solve Shakuntala devi's 2 books, George summers and Ravi narula this would me more than enough. most important thing is develop ur logical analysis skill and try to remember the approach rather than answers. don't panic in the interview just be cool and confident u will definitely get through. Best of luck for all

469) a) 10 1 9 2 8 3 7 4 6 5 5 6 4 7 3 8 2 __ __ b) 2 4 16 512 _

write the next elements in the series.

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Reasoning Test Placement Papers

1. Class A has a higher enrollment than Class B.
Class C has a lower enrollment than Class B.

Class A has a lower enrollment than Class C.

If the first two statements are true, the third statement is A. true

B. false

C. uncertain

D. None

Answer: Option B

2. All animals have

A. Eyes

B. Four legs C. Horns

D. Instincts

Answer: Option D

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3. We, at Comfort Stationers, have always been striving to provide stationery items that would make your work more enjoyable and less strenuous. Our latest innovations are a smooth-flow pen and gradual-friction paper. A combination of these two reduces strain on your fingers and allows faster writing the causes lesser fatigue. Therefore,

replacement of your pen and paper with our innovative products reduces cost of clerical jobs.

Which of the following, if true, would weaken the conclusion drawn in the above argument?

- A. Those who are already using the above new products report greater difficulty in transition from new products to regular ones than from the regular ones to the new ones.
- B. The cost of manufacturing these new products is not more than the cost of manufacturing the regular ones and the new products last longer than the regular ones.
- C. The number of offices using the new products is increasing month by month.
- D. These products need to be purchased in huge lots and need to be stored in special conditions. The cost of procurement and storage is quite high.

Answer: Option D

Solution:

The passage talks about the advantages in writing by using the new kind of pen and paper and arrives at a conclusion about the cost of clerical job. We have to show that the new products do not lead to decrease in cost of clerical job.

None of the choice (a), (c) and (e) has anything about the cost. Hence, none of them weakens the conclusion.

Choice (b) states that the new products can be manufactured and they also last longer. This information strengthens the conclusion.

According to choice (d) the procurement and storage costs are very high. This casts a doubt on the conclusion that the cost of clerical job can be decreased by using these new products. Hence, (d) weakens the conclusion.

4. Choose the correct alternative that will continue the same pattern and fill in the blank spaces:

2, 3, 5, 7, 11, (....), 17

A. 12

B. 13

C. 14

D. 15

Answer: Option B

Solution:

Clearly, the given series consists of prime numbers starting from 2. The prime number after 11 is 13. So, 13 is the missing number

5. (A) The Archaeological Survey of India has submitted a report for the Supreme Court that there is no evidence to prove that the Rama Sethu is man made.

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(B) Mr. Kailash which is a natural formation, is considered holy and is received by Hindus and Buddhists the world over.

- A. if statement (A) is the cause and statement (B) is its effect.
- B. if statement (B) is the cause and statement (A) is its effect.
- C. if both the statements (A) and (B) are independent causes.
- D. if both the statements (A) and (B) are effects of independent causes.

Answer: Option D

Solution:

The cause for ASIs report and the cause for Hindus and Buddhists considering Kailash as holy mountain are different.

6. Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement:

Input: 39 121 48 18 76 112 14 45 63 96 Step I: 14 39 121 48 18 76 112 45 63 96 Step II: 14 39 48 18 76 112 45 63 96 121 Step III: 14 18 39 48 76 112 45 63 96 121 Step IV: 14 18 39 48 76 45 63 96 112 121 Step V: 14 18 39 45 48 76 63 96 112 121

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Step VI: 14 18 39 45 48 63 76 96 112 121

This is the final arrangement and step VI is the last step for this input.

How many steps will be required for getting the final output for the following input?

Input: 101 85 66 49 73 39 142 25 115 74 A. 5

B. 6

C. 7

D. 8

Answer: Option D

Solution:

Step I: The smallest number becomes first and the remaining numbers shift one position rightward.

Step II: The largest number among given numbers becomes last and the remaining numbers shift one position leftward.

The steps are repeated alternately till all the numbers get arranged in ascending order and that will be that last step for that particular input.

7. Statement:

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The principal instructed all the teachers to be careful in class because some students may disturb other students.

Assumptions:

I. The teachers may handle the situation properly and they may restrict the naughty students.

II. The students will welcome the decision of the Principal.

A. If only assumption I is implicit B. If only assumption II is implicit C. If either I or II is implicit

D. If neither I nor II is implicit Answer: Option A

Solution:

I is implicit; that is why the principal instructed the teachers to carry the responsibility. II is not implicit. The mischievous section may not welcome the decision.

8. Labourer is related to wages in the same way as an entrepreneur is related to?

A. Loan

B. Interest C. Taxes D. Profit

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Answer: Option D

Solution:

First earns in the form of a second.

9. Event (A): Company X is opening an office in city Y for marketing the company's products.

Event (B): Company X has chalked out an expansion plan, involving raising production capacity at its existing plants.

A. If 'A' is the effect and 'B' is its immediate and principle cause.

B. If 'B' is the effect and 'A' is its immediate and principle cause.

C. If 'A' is the effect but 'B' is not its immediate and principle cause. D. If 'B' is the effect but 'A' is not its immediate and principle cause. Answer: Option C

Solution:

Events (A) and (B) are related events and chronologically (B) occurs before (A) and because of as they are planning to increase capacity, they have to make a plan to sell their products also so they open new offices for marketing those products. But opening an office in a particular city, requires other events such as market survey etc. It is not the immediate and principle cause.

10. Statement:

Cutting down of forests is a threat to the wild life. Most of the species of animals are on the verge of extinction.

Courses of Action:

I. The species of animals, which are on the verge of extinction, must be protected by creating wild life sanctuaries which contain flora that defines the native habitat of the endangered animals.

II. To the maximum extent possible we should stop deforestation. III. Growing urban forests to compensate for deforestation.

A. Only II follows

B. Only III follows

C. Only I and II follow D. Only I and follows Answer: Option C Solution:

Here the problem is extinction of various species of animals, so providing them their native habitat is the proper solution for the problem.

II is a proper course of action, as stopping deforestation can solve the problem to some extent.

III is not a proper course of action as urban forest cannot be the habitat for the wild animals.

From the first two statements, we know that of the three classes, Class A has the highest enrollment, so the third statement must be false.

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