NUMBER, TIME SEQUENCE, RANKING AND COMPARISION :-(4-8Q

preceeded → previous → Before

preceeded by 4 is 3 → 34

Followed → After → Next

1. How many times 1, 2, 3 are come consequently in which 1 being in the middle and 2 and 3 are either sides of 1.

A. 1 2 3 1 2 2 1 3 3 1 1 2 1 3 1 2 2 1 3 3 1 1 2 2 3 3 4 1 2 3 1 2 3

2 1 3

3 1 2

Ans:- 6 times

2. How many even digits are there in the following sequence which are immediately preceeded to even digit products is equal to 1 even number?

A. 4 2 3 4 4 5 4 3 6 4 9 6 7 3 5 4 9 6 7 8 6 4 9 6 7 3 5 4 9 6, 2 7 3 4 9 6

(exe) e (oxo)

e e o

e-even

O-odd

Ans:- cannot be determined.

3. In above sequence how many even no's of are there which are immediately proceeded by two even digit products is subtracting from followed by odd digit product is equal to an odd number.

A) (e-3), o-2

None.

4. In the following series how many such odd no. are there which are divisible by 3 or by 5, then followed by odd no.s and then also followed by even no's.

a) Nil b) 1 c) 2 d) three

A) 12, 19, 21, (3, 25, 18) 35, 20, 22, (21, 45, 46) 47, 48, 9, 50, 52, 54, 55, 56

Odd no. Odd even = o o e

(Divisible by 3 or 5)

5. How many numbers are there from 1 to 150 which are exactly by 7 but not by 3.

a) 4 b) 5 c) 6 d) 7

A) 7, 14, (21) 28, 35, (42) 49

Ans:- 5 NO's

Shortcut:- applicable by for only prime no's i.e., (7, 3) both are prime numbers.

$$\frac{50}{7} = \frac{7^{2}\cdot 5}{3}$$

$(7-2) = 5$

6. How many no. are there from 1 to 50 which are exactly by 7 and also divisible by 3.

A) 7, 14, (21) 28, 35, (42) 49

Ans:- 2 NO's

7. How many no. are there from 1 to 700 (i) which are exactly by 7 but not by 3 (ii) which are exactly divisible by 7 but also by 3.

A) (i) $\frac{700}{7} = \frac{100}{3} = (100 - 33) = 67$ No's

(ii) $\frac{700}{7} =$

8. How many no's are there from 1 to 81 which are exactly divisible by 9 not by 3.

Ans:- zero

9. How many no's are there from 1 to 81 which are exactly divisible by '3' not by 9

Ans:- 3 6 (9) 12 15 (18) 21 24 (27) 30 33 (36) 39 42 (45)
48 51 (54) 57 60 (63) 66 69 (72) 75 78 (81)

Total 18 No's

Shortcut:-

1 to 81 by 3 = $\frac{81}{3} = 27$

1 to 81 by 9 = $\frac{81}{9} = 9$ (-)

18

Note:-

Like in above type of problems if any one is square of another, first divisible with big no. then not divisible with small no. possibility is not present. First divisible with small no. then not divisible with big no's possibility present. Find such possibilities as follows.

10. How many no's are there from 1 to 4000 (i) which are divisible by 4 but not by 2 (ii) which divisible by 2 but not by 4.

A) i) zero

ii) $\frac{4000}{2} = 2000$

$\frac{4000}{4} = 1000$ (-)

1000 = Ans 1000 No's.

11. The numbers from 1 to 85 by which are exactly divisible by 5 are arranged from ascending order from top. then which no. will be 11th position from top.

A. 5 10 15 20 25 30 35 40 45 50 (55) 60 65 70 75 80 85

Shortcut:-

For ascending order from top @ $11 \times 5 = 55$

12. In above problems which no. will be is in 11 position from bottom.

A. $\frac{85}{5} = 17$, $(17-11) = 6+1 = 7 \times 5 = 35$

Note:-

1. If starts from small no. then required no. is gt equal to given number of position x Divisible number.
2. If starts from big number then required number is equal to (Total - Given position) x Divisible number.

13. In above problem which number will be is in 15th position from bottom.

A. $\frac{85}{5} = 17 \Rightarrow (17-15) = (2+1) \times 5 = 15$.

14. Mithun was counting down from 32. sumit was counting upwards the number starting from 1 and he was calling out only the odd no. and what common number will be calling out at same time and same speed.

a) 19 b) 21 c) 22 d) They will not call out the same no.

A) Mithun: 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

Sumit: 1, 3, 5, 7, 11, 13, 15, 17, 19, 21, 23

15. If 1st and 2nd digits in the sequence 5 9 8 1 3 2 7 4 3 8 are interchanged and also 3rd and 4th digits, 5th & 6th digits and so on, which digits will be 7th counting to your left.

A) shortcut :-

7th from right

For odd no. add 1

7+1 = 8 from right

5 9 (8) 1 3 2 7 4 38

⇒ 8

16. If the position of the 1st and 6th digits of sequence of 8903214675 are interchanged 2 and 7 and so on which no. would be 7th from right end.

a) 2 b) 6 c) 7 d) 8

A) 8 9 0 3 2 1 4 6 7 5

1 2 3 4 5 6 7 8 9 10

1 - 6
2 - 7
3 - 8
4 - 9
5 - 10

7th from right end = 3 it interchanges from 4 to 9 then 9th letter = 7

17. The letters L, M, N, O, P, Q, R, S, T in their order are substitute by 9 integers 1 to 9 but not in that order. 4 is ascend to P. The difference b/w P & T is "5". The difference b/w N & T is 3. what is integer ascend to N.

a) 4 b) 5 c) 6 d) 7

A) L to T = 1 to 9 (not in that order)

(i) P = 4 ; (P ~ T) = 5 i.e., $\left.\begin{matrix} P-T \\ T-P \end{matrix}\right\} = 5$

(ii) $\left.\begin{matrix} N-T \\ T-N \end{matrix}\right\} = 3$

a) P - T = 5 ⇒ 4 - T = 5 ⇒ T = -1 (It is not in 1 to 9)

b) T - P = 5 ⇒ T - 4 = 5 ⇒ T = 9 (OK)

c) N - 9 = 3 ⇒ N = 3 + 9 = 12 (X)

d) T - N = 3 ⇒ 9 - N = 3 ⇒ N = 6 (Ok)

18. 36 vehicles are parked in a parking ground in a single row. After first car there is 1 scooter, after second car there are 2 scooters. After 3 cars, 3 scooters and so on work out the how many scooters in the 2nd half of the row.

A)

1	2	3	4	5	6	7	8	9	10	11	12	13	14
C_1	S	C_2	S	S	C_3	S	S	S	C_4	S	S	S	S

15	16	17	18	19	20	21	22	23	24	25	26	27
C_5	S	S	S	S	S	C_6	S	S	S	S	S	S

28	29	30	31	32	33	34	35	36
C_7	S	S	S	S	S	S	S	C_8

Shortcut:-

C_1 1 C_2 2 C_3 3 C_4 4 C_5 5 C_6 6 C_7 7 C_8 — (18 − 3) = 15 No's

1 + 1 + 1 + 2 + 1 + 3 + 1 + 4 + 1 + 5 + 1 + 6 + 1 + 7 + 1 = 36

(18 − 3) = 15 No's scooters.

↓

3 cars in second half

19. In the following sequence of instructions 1 stands for run, 2 stands for stop and 3 stands for Go, 4 stands for sit, 5 stands for wait the sequence is continued, then which sequence is next.

4 4 5 4 5 3 4 5 3 1 4 5 3 1 2 4 5 4 5 3 4 5 3

a) wait b) sit c) Go d) Run

A) 4 | 45 | 453 | 4531 | 45312 | 45 | 453 | 4531.

is continued

Ans: 1 = run