

NUMBER, TIME SEQUENCE, RANKING AND COMPARISON :- (4-80)

preceeded $\rightarrow$ previous $\rightarrow$ Before $\rightarrow$

preceeded by 4 is 3 $\rightarrow$ 34

Followed $\rightarrow$ After $\rightarrow$ 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 3) (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

(exc) e (o x o)

e-even

e e o

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), 0-2

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 = 0 0 0
/ (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.

$$\frac{50}{7} = \frac{7 \times 25}{8}$$

$$(7-2) = 5$$

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 (9) exactly by 7 but not by 3 (ii) which are exactly divisible by 7 but also by 3.

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

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

8. How many no's are there from 1 to 81 which are exact 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 anyone 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 gr equal to given number of position $\times$ Divisible number.
2. If starts from big number then required number is equal to (Total - Given position) $\times$ 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 5981327438 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 3 8

$\Rightarrow 8$

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 substituted by 9 integers 1 to 9 but not in that order. It is ascending. P. The difference b/w P & T is "5". The difference b/w N & T is 3. What is integer assigned 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) $P-T=5 \Rightarrow 4-T=5 \Rightarrow T=-1$ (It is not in 1 to 9)

b) $T-P=5 \Rightarrow T-4=5 \Rightarrow T=9$ (OK)

c) $N-9=3 \Rightarrow N=3+9=12$ (X)

d) $T-N=3 \Rightarrow 9-N=3 \Rightarrow N=6$ (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

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

$$(18-3) = 15 \text{ No's scooters.}$$

↓
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 | 4 5 | 4 5 3 | 4 5 3 1 | 4 5 3 1 2 | 4 5 | 4 5 3 | 4 5 3 1.

is continued

Ans: 1 = run

RANKING TEST (1-2M)

11

1. In a row your position is 5th from either ends then how many members in the row?

A) 1 2 3 4

5
5

 4 3 2 1

$$10 - 1 = 9$$

Only one person is counting twice so subtract '1'

2. Ramarav is 16th from top and 49th from bottom in a class. How many members are there in the class.

A.
$$\begin{array}{r} 16 \\ 49 \\ \hline 65 - 1 = 64 \end{array}$$

3. Manisha ranked 16th from top and 29th bottom among those who passed an examination 6 boys did not participate in the competition and 5 failures in this. Then how many members are in the class.

A)
$$\begin{array}{r} 16 \\ 29 \\ \hline 45 - 1 = 44 \text{ - passed} \\ 6 \text{ - Abstainies} \\ 5 \text{ - fails} \\ \hline 55 \end{array}$$

4. In a row of 12 boys ramu who is 5th from left end. Then what is his position from right.

A. 1 2 3 4 5 6 7 8 9 10 11 12 /

$$12 - 5 = 7 + 1 = 8^{\text{th}} \text{ from right.}$$

5. Manoj and Sachin are ranked 7th and 11th respectively from top in a class of 31 students. What will be the respective ranks from bottom.

A. $M - 7 \Rightarrow M_{24+1} = M_{25}$

$$S - 11 \Rightarrow S_{(31-11)+1} = S_{21}$$

6. In a row of 10 boys when rohit was shifted two places towards left, he became 7th from left end what was his position earlier from right end.

← left

A. 1 2 3 4 5 6 ⑦ 8 9 10

2nd from right

7. In a row of girls shilpa is 8th from left and reena is 17th from right. If they interchange their position, shilpa becomes 14th from left. How many girls in the row?

a) 25 \ b) 27 c) 29 d) None \

A. 1 2 3 4 5 6 7 8 9 10 11 12 13

$$\begin{array}{r} / \quad \boxed{\begin{array}{c} R_{17} \\ S_{14} \end{array}} \quad 16 \ 15 \ 14 \ 13 \ 12 \ 11 \ 10 \ 9 \ 8 \ 7 \ 6 \ 5 \ 4 \ 3 \ 2 \ 1 \\ \hline 31 - 1 = 30 \end{array}$$

One place is counting two times so "-ve".

8. In a row of girls reeta and mounika occupies 9th place from right and 10th place from left end respectively. If they interchange their places reeta and mounika occupies 17th from right 18th from left. How many girls are there in the row.

a) 25 b) 26 c) 27 d) none of these.

A)

$$\begin{array}{ccc} M_{10} & & R_9 \\ & \diagdown & / \\ & X & \\ & / & \diagdown \\ R_{17} & & M_{18} \end{array}$$

$$27 - 1 = 26 \quad 27 - 1 = 26$$

9. In a que of children kilas is 5th from left and mona is 6th from right. when they interchange their places among them kilas become 13th from left then what will be mona's position from right.

a) 4 b) 8 c) 14 d) 15.

A. 1 2 3 4 K 5 6 7 8 9 10 11 12 M 6 5 4 3 2 1

$$\begin{array}{c} \leftarrow \text{Kilas} \rightarrow \\ \leftarrow \text{Mona} \rightarrow \end{array}$$

M₁₄ 13 12 11 10 9 8 7 K₁₃

$$\begin{array}{cc} K_5 & 8 & M_6 \\ & \times & \\ M & & K_{13} \end{array}$$

$$\rightarrow 6 + 8 = 14$$

Ans: - 14.

10. In a row of boys Kapil is 8th from right Nikunj is 12th from left. When Kapil and Nikunj interchange their position. Nikunj becomes 21th from left. Which of the Kapil position from right.

- a) 8 b) 17 c) 21 d) cannot.

$$\begin{array}{cc} N_{12} & 9 & K_8 \\ & \times & \\ K_{17} & & N_{21} \end{array}$$

11. In a cube Amrutha is 10th from front while Mukul is 25th from behind and Mamata is just in middle of two. There will be 50 persons in cube. What position mamata occupies from front.

- a) 20 b) 19 c) 18 d) 17

A) Total = 50

$$A_{10} \text{ --- } M \text{ --- } M_{25}$$

$$50 - (10 + 25) = 50 - 35 = \frac{15}{2} = 7.5 \approx 8 \text{ from left and}$$

$$10 + 8 = 18.$$

12. In a cube vijay is 14th from front and jack is 17th from end while mary is in b/w vijay and jack. If vijay be ahead of jack and there will be 48 persons in que. How many persons in b/w mary and vijay.

- a) 8 b) 7 c) 6 d) 5

A) Total = 48

$$V_{14} \text{ --- } M \text{ --- } J_{17}$$

$$48 - (14 + 17)$$

$$= 48 - 31 = \frac{17}{2} = 8.5 \approx 9^{\text{th}} \text{ person is mary}$$

In b/w vijay and Mary = 8 No's.

13. Three persons A, B, C are standing in a Q. There are 5 persons b/w A & B. 8 persons b/w B & C. If there be 3 persons ahead of C and 21 persons behind A. What could be the min no. of persons in the que.

- a) 41 b) 40 c) 28 d) 27

A. $\leftarrow \frac{21}{A} \xrightarrow{5} B \xrightarrow{8} C \xrightarrow{3}$

$$21 + 1 + 5 + 1 + 8 + 1 + 3 = 40$$

ii) $\leftarrow \frac{3}{C} \xrightarrow{8} B \xrightarrow{15} \leftarrow$
 $A \xrightarrow{21} \leftarrow$
 $\quad \quad \quad \frac{-6}{11}$

$$3 + 1 + 8 + 1 + 15 = 28$$

ahead / behind

Ahead

$$\{C\} \xrightarrow{3}$$

$$\leftarrow \{C\}$$

Behind

$$\leftarrow \frac{21}{\{A\}}$$

$$\{A\} \xrightarrow{21}$$

COMPARISONS

Small	Tall
less	Big
shorter	taller
younger	elder
	Richer

1. A is taller than B, who is shorter than C.

A. C
A
B

2. Sachin is taller than Kapil but shorter than Dhoni. Yuvraj is taller than Pathan but shorter than Kapil.

A. Dhoni
Sachin
Kapil
Yuvraj
Pathan

↓ pathan is shorter.

3. Rahul is taller than Ranjan but shorter than Gunjan. Vijay and Sharat are shorter than Gunjan. Vijay is shorter than Ranjan but taller than the one who is shortest among them. With descending order of the heights who is in 4th position.

A) Gunjan
Rahul
Ranjan
Vijay → 4th person.
Sharat

4. Lalu is taller than Balu but shorter than Kalu. Malu is taller than Valu but shorter than Ralu. Who is shortest among them

A. Kalu
1st state ment Lalu
Balu
Ralu
2nd state ment Malu

↓ cannot be determined

5. For solving above question which are the following statements are true.

- A) Malu is taller than Lalu
- B) Ralu is taller than Kalu
- C) Malu is taller than Kalu
- D) Valu is taller than Lalu

Ans:- (d),
cannot be determined.