## Blood Relations

Past Trends

| Attempt | Total |
| :---: | :---: |
| May 2018 | 5 |
| Nov 2018 | 4 |
| Jun 2019 | 4 |
| Nov 2019 | 3 |
| Nov 2020 | 6 |
| Jan 2021 | 4 |
| Jul 2021 | 4 |
| Dec 2021 | 6 |
| Jun 2022 | 6 |
| Dec 2022 | 7 |

## Blood Relations - Basics



## Blood Relations - Application of Pro-Tip

## Basic

|  | P is Q's brother. R is Q's mother. S is R's father. T is S's mother. How is P related |
| :--- | :--- |
| Example to T? |  |

a. Grand-Daughter
b. Great Grandson
c. Grandson
d. Grandmother

Ans: c

## Choice of Answers

## Example

Ans: a

## Hold the Statement

## $\begin{array}{ll} & \mathrm{A} \text { is } \mathrm{B} \text { 's broth } \\ \text { Example } & \text { related to C? }\end{array}$

a. Sister
b. Sister-in-law
c. Niece
d. Wife

## Ans: d

## Use of Empty Box

|  | $A$ and $B$ are sisters. $R$ and $S$ are brothers. $A^{\prime} s$ daughter is $R^{\prime}$ 's sister. What is $B^{\prime} s$ |
| :--- | :--- |
| Example | relation to $S$ ? |

a. Mother
b. Grand Mother
c. Sister
d. Aunt

## Ans: d

## Couple in Brackets

|  | $A$ is father of $C$ and $D$ is son of $B . E$ is brother of $A$. If $C$ is sister of $D$ how is $B$ |
| :--- | :--- |
| Example | related to $E$ ? |

a. Sister-in-law
b. Sister
c. Brother
d. Brother-in-law

## Ans: a

## Pointing Based Problems

Pointing to a lady in a photograph. Meera said. "Her father's only son's wife is
Example my mother-in-law "How is Meera's husband related to that lady in the photo?
a. Nephew
b. Uncle
c. Son
d. Father

## Ans: a

## Important MCQs

A is $B^{\prime} s$ sister, $C$ is $B^{\prime}$ 's mother, $D$ is C's father, $E$ is $D^{\prime}$ 's mother, then how $A$ is
related to $D$ ?
a. Grandfather
c. Grandmother
Ans: d (wrong answer in study material)

|  | P, Q, R, S, T, U are 6 members of a family in which there are |
| :--- | :--- |
| T, a teacher is married to a doctor who is mother of R an |  |
| married to P. P has one son and one grandson. Of the two m |  |

Ans: d

## Exercise

Ans: d

Suresh introduces a man as "He is the son of the woman who is the mother of the

## Exercise

Seema is the daughter-in-law of Sudhir and sister-in-law of Ramesh. Mohan is the son of Sudhir and only brother of Ramesh. Find the relation between Seema and Mohan.
a. Sister-in-law
b. Aunt
c. Cousin
d. Wife husband of my mother". How is Suresh related to the man?
a. Uncle
b. Son
c. Cousin
d. Grandson

Ans: b

If $P+Q$ means $P$ is the mother of $Q ; P \div Q$ means $P$ is the father of $Q ; P-Q$ means $P$ is PYQ the sister of $Q$; then which of the following relationship shows that $M$ is the daughter of $R$ ?
a. $R+N \div M$
b. $\mathrm{R}-\mathrm{M} \div \mathrm{N}$
c. $R \div M+N$
d. None

## Ans: c

| PYQ | A girl introduced a boy as the son of the daughter of fath <br> is girl's |
| :--- | :--- | :--- |
| a. Brother b. Son <br> c. Son-in-law d. Uncle |  |

## Ans: a



Among her children, Ganga's favorites are Ram and Rekha. Rekha is the mother of Sharat, who is loved most by his uncle Mithun. The head of the family is Ram Lal,

## Exercise <br> \& PYQ

Ans: d

## Exercise

 who is succeeded by his sons Gopal and Mohan. Gopal and Ganga have been married for 35 years and have 3 children. What is the relation between Mithun and Mohan?a. Uncle
b. Son
c. Brother
d. No Relation

A prisoner introduced a boy who came to visit him to the jailor as "Brothers and sisters I have none, he is my father's son's son". Who is the boy?
a. Nephew
b. Son
c. Cousin
d. Uncle

## Ans: b

## Seating Arrangements

## Past Trends

| Attempt | Total |
| :---: | :---: |
| May 2018 | 4 |
| Nov 2018 | 4 |
| Jun 2019 | 4 |
| Nov 2019 | 3 |
| Nov 2020 | 2 |
| Jan 2021 | 4 |
| Jul 2021 | 4 |
| Dec 2021 | 5 |
| Jun 2022 | 2 |
| Dec 2022 | 3 |

## Seating Arrangements - Basics

| Meaning | The process of making a group of people to sit as per a prefixed manner is called Seating Arrangement |  |
| :---: | :---: | :---: |
| Question Requirement | In these questions, some conditions are given on the basis of which students are required to arrange objects, either in a row or in a circular order. |  |
| Types | Linear - One Row, Linear - Two Rows, Circular |  |
| Pro-Tip of forming diagram | - We need to make the diagram taking persons Name/ Alphabet Code <br> - First make multiple mini-diagrams using multiple small information. <br> - Try to connect these and make a master diagram. <br> - Be Careful about number of objects and their sense in the context <br> - In some cases if information is not very clear, we may need to make multiple diagrams and then decide the correct one eventually |  |
| Linear <br> Arrangement <br> (Single Row) | The arrangement is done only on one 'axis' and hence, the position of persons or objects is important in terms of order/ position. <br> Useful Interpretations |  |
|  | $A$ is immediate left of $P$ | Then it is sure no one is between $A$ and $P$ and $A$ is just left of $P$ |
|  | A is left of $P$ | In this case A may be on exact left of $P$ or may be at left after some places |
|  |  |  |
| Linear Arrangements MCQs |  |  |

PYQ May 18
PYQ Jun 19

Five boys $A, B, C, D$ and $E$ are sitting in a row $A$ is to the right of $B$ and $E$ is to the left of $B$ but to the right of $C$. $A$ is to the left of $D$. Who is second from the left end?
a. D
b. A
c. E
d. B

## Ans: c

## Exercise

(Modified)

Five boys are standing in a row facing East. Pavan is to the left of Tavan, Vipin and Chavan. Tavan, Vipin and Chavan are to the left of Nakul. Chavan is between Tavan and Vipin. If Vipin is fourth from the left, then how far Tavan from the left?
a. First
b. Second
c. Third
d. Fourth

Ans: b

|  | There are eight books kept one over the other. Two books are on Organisation <br> Behaviour, two books on TQM, three books on Industrial Relations and one book is <br> on Economics. Counting from the top, the second, fifth and sixth books are on |
| :--- | :--- |
| Exercise | Industrial Relations. Two books on Industrial Relations are between two books on |
| (Modified) | TQM. One book of Industrial Relations is between two books on Organizational <br> Behaviour while the book above the book of Economics is a book of TQM. Which <br> book is the fourth book from the top? |

a. Economics
b. TQM
c. Industrial Relations
d. Organization Behaviour

Ans: b
Example

Ans: d
Example
$\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{U}, \mathrm{V}$ and W are sitting in a row facing North.
(i) $\quad \mathrm{P}$ is fourth to the right of $T$
(ii) $\quad \mathrm{W}$ is fourth to the left of S
(iii) $R$ and $U$, which are not at the ends, are neighbours of $Q$ and $T$ respectively.
(iv) $\quad W$ is next to the left of $P$ and $P$ is the neighbor of $Q$.

Who are sitting at the extreme ends?
a. T and P
b. T and S
c. Q and R
d. U and S

Ans: b

## PYQ Dec 21

Ans: d

## Exercise

Ans: b

## PYQ May 18

PYQ Jun 19

Ans: d


Ten students are $A$ to $J$ are sitting in a row facing west.
I. $\quad \mathrm{B}$ and F are not sitting on either of the edges.
II. $\quad G$ is sitting left of $D$ and $H$ is sitting to the right of $J$.

Exercise
III. There are four persons between $E$ and $A$.
IV. $\quad I$ is the north of $B$ and $F$ is the south of $D$.
$V$. $J$ is between $A$ and $D$ and $G$ is in between $E$ and $F$
VI. There are two persons between H and C

Who is sitting at the seventh place counting from the left?
a. H
b. C
c. J
d. H or C

Ans: d
2 Who among the following is definitely sitting at one of the ends?
a. C
b. H
c. E
d. Cant Say

Ans: c
3 Who are immediate neighbours of I?
a. BC
b. BH
c. AH
d. Cant Say

Ans: d
4
Who is sitting second left of $D$ ?
a. G
b. $F$
c. E
d. J

Ans: a
If $G$ and $A$ interchange their positions, then who become the immediate neighbours of $E$ ?
a. G and F
b. Only F
c. Only A
d. J and H

Ans: c


Six persons $M, N, O, P, Q$ and $R$ are sitting in two rows with three persons in each row. Both the row are in front of each other. $Q$ is not at the end of any row. $P$ is

## Exercise

Ans: b

## PYQ Nov 18

## Ans: a <br> Ans: a

 second the left of $R$. $O$ is the neighbour of $Q$ and diagonally opposite to $P$. $N$ is the neighbour of $R$. Who is in front $N$ ?a. $R$
b. Q
c. $P$
d. M

Six flats on a floor in two rows facing North and South are allotted to $P, Q, R, S, T$ and $U$. $Q$ gets a North facing flat and it is not next to $S$. $S$ and $U$ get diagonally opposite flat. $R$ next to $U$ gets a South facing flat and $T$ gets a North facing flat. Whose flat is between $Q$ and $S$ ?
a. T
b. U
c. R
d. $P$


## PYQ Dec

 20211

2

3

## Example 11

## Ans: c

## PYQ Jun 22

Ans: d

Four ladies \& A, B, C and D and Four Gentlemen E, F, G and $H$ are sitting in a circle around a table facing each other.
I. No two ladies or gentlemen are sitting side by side.
II. $\quad C$, who is sitting between $G$ and $E$, is facing $D$.
III. $F$ is between $D$ and $A$ and facing $G$.
IV. $H$ is to the right of $B$.

Who is sitting left of $A$ ?
a. E
b. $F$
c. G
d. H

Ans: b
E is facing whom?
a. $F$
b. B
c. $G$
d. H

Ans: d
Who is immediate neighbours of $B$ ?
a. GH
b. EF
c. EH
d. FH

Ans: a

Five people A, B, C, D and E are seated about a round table. Every chair is spaced equidistant from adjacent chairs.
I. $\quad C$ is seated next to $A$.
II. $A$ is seated two seats from $D$.
III. $B$ is not seated next to $A$.

Which of the following must be true?
I. $D$ is seated next to $B$.
II. $E$ is seated next to $A$.

Select the correct from the options given below:
a. Only I
b. Only II
c. Both
d. None

If six persons are sitting in a hexagonal table are $P, Q, R, S, T, U$ each facing the centre. $P$ is seated opposite to $Q$ who is between $R$ and $S . P$ is between $T$ and $U$. T is left of $S$. Which of them is facing $R$ ?
a. P
b. Q
c. U
d. T

## Direction Test

Past Trends

| Attempt | Total |
| :---: | :---: |
| May 2018 | 6 |
| Nov 2018 | 4 |
| Jun 2019 | 4 |
| Nov 2019 | 5 |
| Nov 2020 | 4 |
| Jan 2021 | 3 |
| Jul 2021 | 5 |
| Dec 2021 | 5 |
| Jun 2022 | 5 |
| Dec 2022 | 4 |

## Direction Test

| Question Requirements | - Here questions consist of a sort of direction puzzle. <br> - A successive follow-up of direction is formulated and <br> - the students are required to ascertain the final direction or <br> - direction with respect to starting points or <br> - other related problems. |  |  |
| :---: | :---: | :---: | :---: |
| Types of Question | Type | Requirement | Remark |
|  | Type I | Finding final direction | Distance can be ignored |
|  | Type II | Finding the direction with respect to original point | Distances are important |
|  | All other varieties | Multiple | No Remark |

## Basic MCQs

A man starts from a point, walks 4 miles towards north and turns left and walks 6 miles, turns right, and walks for 3 miles and again turns right and walks 4 miles

## Exercise

Ans: b

## Exercise

Arun started from point A and walked 10 kms East to point B, then turned to North and walked 3 kms to point $C$ and then turned West and walked 12 kms to point D ,

## then again turned South and walked 3 kms to point E . In which direction is he from

 his start point?a. East
b. South
c. West
d. North

Ans: c

## Exercise

A tourist drives 10 km towards west and turns to left and takes a drive of another 4 km . He then drives towards east another 4 km and then turns to his right and drives 5 km . Afterwards he turns to his left and travels 6 km . In which direction is he from the starting point?

## Ans: b



Raju facing North and moves 20 kms , then he turned to his right and moves 20 kms and then he moves 10 kms in North-East, then he turned to his right and

Ans: a

## Exercise

Ans: d
Exercise
(Modified)

Ans: b

## Exercise

Ans: b
a. East
b. South
c. West
d. North moves 20 kms and then he turned to his right and moves 20 kms and again he turned to his left and moves 20 kms . Now in which direction Raju is facing?
a. South-East
b. North-East
c. South-West
d. North-West

Five boys $A, B, C, D$ and $E$ are sitting in a park in a circle. $A$ is facing South-West, $D$ is facing South-East, $B$ and $E$ are right opposite $A$ and $D$ respectively and $C$ is equidistant between $D$ and $B$. Which direction is $C$ facing?
a. West
b. South
c. North
d. East

Daily in the morning the shadow of Gol Gumbaz falls on Bara Kaman and in the evening the shadow of Bara Kaman falls on Gol Gumbaz exactly. So, in which direction is Bara Kaman to Gol Gumbaz?
a. Eastern
b. Western
c. Northern
d. Southern

If $X$ stands on his head with his face towards south, to which direction will his lefthand point?
a. East
b. West
c. North
d. South

## PYQ May 18

Ans: b

## Exercise

Ans: d

## Example

Ans: c
MTP

Ans: a

One evening before sunset, two friends Ravi and Raj were talking to each other face to face. If Ravi's shadow was exactly to his left side, which direction was Raj facing?
a. North
b. West
c. East
d. South
a. North

I stand with my right-hand extended side-ways towards South. Towards which direction will my back be?
a. North
b. West
c. East
d. South

Roy walks 2 kms to East, then turns North-West and walks 3 kms . Then he turns South and walks 5 kms . Then again, he turns West and walks 2 kms . Finally, he turns North and walks 6 kms . In which direction, is he from the starting point?
a. South-East
b. North-East
c. South-West
d. North-West

Gopal started walking 2 kms straight from his school. Then he turned right and walked 1 km . Again, he turned right and walked 1 km to reach his house. If his house is south-east from his school, then in which direction did Gopal start walking from the school?
a. North
b. West
c. East
d. South

## MTP

Ans: b

Kiran walks 2 km towards North then he turns East and walks 10 km . After this he turns North and walks 3 km. Again, he turns towards East and walks 2 km . How far is he from the starting point?
a. $\quad 10 \mathrm{~km}$
b. 13 km
c. $\quad 15 \mathrm{~km}$
d. 17 km


Ramu moved 75 meters towards North. He then turned to left and after walking about 25 meters, turned left again and walks 80 m . Finally, he turned to the right

MTP

## Ans: c

 at an angle of $45^{\circ}$. In which direction was he moving finally?a. South-East
b. North-East
c. South-West
d. North-West

PYQ Nov 20

## Ans: b

One day Ram left home and cycled 10 km southward, turned right and cycled 5 km and turned right and cycled 10 km and turned left and cycled 10 km . How many kms will he have to cycle to reach his home straight?
a. 10
b. 15
c. 20
d. 25

PYQ Nov 20

Ans: a

PYQ Dec 21

Ans: a

A man is facing west, he turns $45^{\circ}$ in the clockwise direction and then another $180^{\circ}$ in the same direction and then $270^{\circ}$ in the anti-clockwise direction. Which direction is he facing now?
a. South-
b. North-
West
c. West
d. South

The hour hand of a clock is in west direction when time is 3 o'clock. What is the direction of minutes hand when time is 6:45?
a. East
b. North
c. West
d. South

## Chp9: Number Series, Coding, Decoding, Odd Man Out

Past Trends

| Attempt | Total |
| :---: | :---: |
| May 2018 | 3 |
| Nov 2018 | 5 |
| Jun 2019 | 4 |
| Nov 2019 | 6 |
| Nov 2020 | 6 |
| Jan 2021 | 5 |
| Jul 2021 | 5 |
| Dec 2021 | 6 |
| Jun 2022 | 7 |
| Dec 2022 | 6 |

## Basics

| Number Series | - In this type of questions, we need to identify the missing term of the series real according to a specific pattern of the series rule to form its code. <br> - The students are required to detect the missing number of the series and answer the questions accordingly. |  |
| :---: | :---: | :---: |
| Alphabet Series | - Alphabet series consists of letters of the alphabet placed in a specific pattern. |  |
| Coding and Decoding | - Coding: converting original message into code <br> - Decoding: converting code into original message <br> - Types: Number Coding, Letters Coding etc. |  |
| Odd Man Out | - In these questions, four or five elements are given, out of which one does not belong to the group, we need to identify it. |  |
| Classification of MCQs | Quickly Identifiable | Pattern which can be identified instantly during exams |
|  | Not Quickly Identifiable (Advance) | Pattern which required lot of thinking and even after that there is no surety that it will click on spot |

MCQs
Example
2, 7, 16, $\qquad$ ,46, 67, 92
a. 31 b. 29
c. 26
d. None

Ans: b (difference of difference)

|  | Find the wrong term: |
| :--- | :--- |
| Example | $9,29,65,126,217,344$ |

a. 65
b. 126
c. 217
d. 29

Ans: d (cube +1 )

| Example | If in a certain language MYSTIFY is coded as NZTUJGZ, how is MENESIS coded in |
| :--- | :--- | :--- |
| that language? |  |
| a. NZTUJGZ b. NZUJTZG c. ZUINTJ d. None |  |

Ans: a (+1 for all letters)


Ans: a (First letter -1 and other are pair swapping)

|  | Find wrong term: |
| :---: | :---: |
| Example | $1,5,14,30,51,55,91$ |
| a. 5 |  |

b. 55
c. 51
d. 91

Ans: c (Gap of squares)
Exercise
120, 80, 40, 45, ?, 15
a. 15
b. 20
c. 25
d. 30

Ans: d (RIP Logic - splitting terms)
Exercise
$1,1,4,8,9, ?, 16,64$
a. 27
b. 28
c. 32
d. 40

Ans: a (alternate squares cubes)

## Exercise

1, 2, 6, 7, 21, 22, 66, ?, 201
a. 69
b. 68
c. 67
d. 69

Ans: $\mathbf{c}(+1 \times 3)$

| Exercise | $2,3,3,5,10,13,39, ~ ?, 172,177$ |
| :---: | :---: |
|  | a. 42 |

c. 43
d. 40

Ans: c ( $+1 \times 1,+2 \times 2, \ldots$ )
Exercise $\quad 8,28,116,584$, ?
a. 1752
b. 3502
c. 3504
d. 3508

Ans: $d(\times 3+3, \times 4+4, \times 5+4 \ldots)$
Exercise
$5,2,7,9,16,25,41$,
a. 65
c. 67
d. 68

Ans: $\mathbf{b}$ (every new term is the sum of last two terms)

| Exercise | If RED is coded as 6720 then GREEN would be coded as |
| :--- | :---: | :---: | :---: | :---: | :--- |
|  | a. 9207716 b. 167129 c. 1677209 d. 1672091 |

Ans: c (letter position +2 then reverse order)
Exercise
If MEKLF is coded as 91782 and LLLJK
c. 54610
d. 75632

Ans: c (letter position starting from D as $0, E$ as 1 and so on)

|  | In a certain code ' 256 ' means 'you are good', '637' means 'we are bad' and ' 358 ' |
| :--- | :--- |
| Exercise | means 'good and bad'. Which of the following represents 'and' in that code? |

a. 2
b. 5
c. 8
d. 3

Ans: c (common words in sentences can be linked with common digit)
Exercise
835, 734, 642, 751, 853, 981, 532
a. 751
b. 853
c. 981
d. 532

Ans: a (first digit is the sum of next two digits)

| PYQ Jun 19 | Find the next term: 7, 23, 47, 119, 167 |  |  |
| :---: | :---: | :---: | :---: | :---: |
| a. 211 | b. 223 | c. 287 | d. 319 |

Ans: c (square of prime number - 2 )

| MTP | Find missing term of letter series $A, C D, G H I$, | UVWXY |  |  |
| :--- | :---: | :---: | :---: | :--- |
| a. LMNO | b. MNO | c. | MNOP | d. NOPQ |

Ans: c (alphabet sequence with gap and increasing number of alphabets in every next term)
In a certain code, "CLOUD" is written as "GTRKF". How is "SIGHT" written in that MTP code?
a. UGHHT
b. UHJFW
c. WFJGV
d. WGJHV

Ans: $\mathbf{d}(+3,-1,+3,-1$ and reverse order)
In a certain code "SOUTHERN" is written as "UVPTMQDG". How is MARIGOLD MTP written in that code?
a. JSBCNFKS
b. JSBNHPME
c. JSBNCKNF
d. NBSKCJNF

Ans: c (+1 for first four terms, -1 for next four terms then reverse order for each half)

| MTP | If system is coded as 131625 then TERMS will be coded as? |
| :--- | :--- | :--- | :--- | :--- |
| a. 62251 b. 62451 c. 64251 d. 62415 |  |

Ans: b (option-based mapping)
MTP
The missing term of the series 11,10 , $\qquad$ , 27, 66.5, 198.5
a. 14
b. 16
c. 21
d. 19

Ans: a ( $\times 1-1, \times 1.5-1, \times 2-1, \ldots)$

