## INTRODUCTION:

The questions which are asked in this section depend upon Relation. You should have a sound knowledge of the blood relation in order to solve the questions.

To remember easily the relations may be divided into two sides as given below:

## 1. Relations of Paternal side:

1. Father's father $\rightarrow$ Grandfather
2. Father's mother $\rightarrow$ Grandmother
3. Father's brother $\rightarrow$ Uncle
4. Father's sister $\rightarrow$ Aunt
5. Children of uncle $\rightarrow$ Cousin
6. Wife of uncle $\rightarrow$ Aunt
7. Children of aunt $\rightarrow$ Cousin
8. Husband of aunt $\rightarrow$ Uncle
9. Relations of Maternal side:
10. Mother's father $\rightarrow$ Maternal grandfather
11. Mother's mother $\rightarrow$ Maternal grandmother
12. Mother's brother Maternal uncle
13. Mother's sister $\rightarrow$ Aunt
14. Children of maternal uncle $\rightarrow$ Cousin
15. Wife of maternal uncle $\rightarrow$ Maternal aunt

Relations from one generation to next:


Different types of questions with explanation:

Type 1:

If $A+B$ means $A$ is the mother of $B$; $A \times B$ means $A$ is the father of B ; $\mathrm{A} \$ \mathrm{~B}$ means A is the brother of B and A (a) $B$ means $A$ is the sister of $B$ then which of the following means P is the son of Q ?
(A) $\mathrm{Q}+\mathrm{R} @ \mathrm{P}$ @ N
(B) $\mathrm{Q}+\mathrm{R}$ * $\mathrm{P} @ \mathrm{~N}$
(C) Q x R \$ P @ N
(D) Q x R \$ P \$ N

Solution: (D)
$\mathrm{Q} \times \mathrm{R}=\mathrm{Q}$ is the mother of $\mathrm{R}[-\mathrm{Q}, \pm \mathrm{R}]$
$\mathrm{R} \$ \mathrm{P}=\mathrm{R}$ is the brother of $\mathrm{P}[+\mathrm{R}, \pm \mathrm{P}]$
$\mathrm{P} \$ \mathrm{~N}=\mathrm{P}$ is the brother of $\mathrm{N}[+\mathrm{P}, \pm \mathrm{N}]$

Therefore P is the son of Q .

Type 2:

A has 3 children. B is the brother of C and C is the sister of $D, E$ who is the wife of $A$ is the mother of $D$. There is only one daughter of the husband of E . what is the relation between D and B ?

Solution: With the chart


Therefore, D is a boy because there is only one daughter of $E$.

Hence, B is the brother of D.

Type 3:

Pointing to a photograph, Rekha says to Lalli, "The girl in the photo is the second daughter of the wife of only son of the grandmother of my younger sister." How this girl of photograph is related to Rekha?

## Solution:

## First Method - By Generating Charts:



Second method:

1. Grandmother of younger sister of Rekha $\rightarrow$ Grandmother of Rekha
2. Wife of only son of grandmother $\rightarrow$ Mother of Rekha
3. Younger daughter of the mother $\rightarrow$ Younger sister.

Note: While solving the question $(+)$ can be used for male and (-) can be used for female.

1. Pointing to a photograph of a boy Suresh said, - "He is the son of the only son of my mother." How is Suresh related to that boy?
A. Brother
C. Cousin
D. Fat

## Answer: Option D

Explanation: The boy in the photograph is the only son of the son of Suresh's mother i.e., the son of Suresh. Hence, Suresh is the father of boy.

2 If $\mathrm{A}+\mathrm{B}$ means A is the mother of B ; $\mathrm{A}-\mathrm{B}$ means A is the brother $\mathrm{B} ; \mathrm{A} \% \mathrm{~B}$ means A is the father of B and $\mathrm{A} \times \mathrm{B}$ means A is the sister of $B$, which of the following shows that $P$ is the maternal uncle of Q ?
A. $\mathrm{Q}-\mathrm{N}+\mathrm{Mx}$ P
B. $\quad \mathrm{P}+\mathrm{S} \times \mathrm{N}-$
C. $\quad \mathrm{P}-\mathrm{M}+\mathrm{N} \mathrm{x}$
D. $\mathrm{Q}-\mathrm{S} \% \mathrm{P}$

## Answer: Option C

## Explanation:

$P-M \rightarrow P$ is the brother of $M$
$\mathrm{M}+\mathrm{N} \rightarrow \mathrm{M}$ is the mother of N
$\mathrm{N} \times \mathrm{Q} \rightarrow \mathrm{N}$ is the sister of Q

Therefore, P is the maternal uncle of Q .
3. If A is the brother of B ; B is the sister of C ; and $C$ is the father of $D$, how $D$ is related to $A$ ?
A. Brother
B. Sister
C. Nephew
D. Cannot be

## Answer: Option D

Explanation:If D is Male, the answer is Nephew.

If D is Female, the answer is Niece.

As the sex of D is not known, hence, the relation between D and A cannot be determined.

Note: Niece - A daughter of one's brother or sister, or of one's brother-in-law or sister-inlaw. Nephew - A son of one's brother or sister, or of one's brother-in-law or sister-in-law.
4. If $\mathrm{A}+\mathrm{B}$ means A is the brother of B ; $\mathrm{A}-\mathrm{B}$ means A is the sister of B and $\mathrm{A} \times \mathrm{B}$ means A is the father of B . Which of the following means that C is the son of M ?
A. $\mathrm{M}-\mathrm{N} \mathrm{x} \mathrm{C}+\mathrm{F}$
B. $\quad \mathrm{F}-\mathrm{C}+\mathrm{NxM}$
C. $\mathrm{N}+\mathrm{M}-\mathrm{Fx} \mathrm{C}$
D. $\quad \mathrm{MxN}-\mathrm{C}+\mathrm{F}$

## Answer: Option D

Explanation:
$\mathrm{MxN} \rightarrow \mathrm{M}$ is the father of N
$\mathrm{N}-\mathrm{C} \rightarrow \mathrm{N}$ is the sister of C
and $\mathrm{C}+\mathrm{F} \rightarrow \mathrm{C}$ is the brother of F .

Hence, M is the father of C or C is the son of M .
5. Introducing a boy, a girl said, "He is the son of the daughter of the father of my uncle." How is the boy related to the girl?
A. Brother
B. Nephew
C. Uncle
D. Son-in-law

## Answer: Option A

## Explanation:

The father of the boy's uncle $\rightarrow$ the grandfather of the boy and daughter of the grandfather $\rightarrow$ sister of father.
6. Pointing to a photograph Lata says, "He is the son of the only son of my grandfather." How is the man in the photograph related to Lata?
A. Brother
B. Uncle
C. Cousin
D. $\quad \begin{aligned} & \text { Data } \\ & \text { inadequate }\end{aligned}$

## Answer: Option A

Explanation: The man in the photograph is the son of the only son of Lata's grandfather i.e., the man is the son of Lata's father. Hence, the man is the brother of Lata.
7. If $\mathrm{A}+\mathrm{B}$ means A is the brother of B ; $\mathrm{A} \times \mathrm{B}$ means $A$ is the son of $B$; and $A \% B$ means $B$ is the daughter of $A$ then which of the following means $M$ is the maternal uncle of N ?
A. $\mathrm{M}+\mathrm{OxN}$
B. $\quad{ }_{\mathrm{P}}^{\mathrm{M}} \% \mathrm{O} \times \mathrm{N}+$
C. $\mathrm{M}+\mathrm{O} \% \mathrm{~N}$
D. None of these

## Answer: Option D

## Explanation:

Because the sex of O is not known.
8. If D is the brother of B , how B is related to C ? To answer this question which of the statements is/are necessary?

1. The son of D is the grandson of C .
2. $B$ is the sister of $D$.
A. Only 1
B. Only 2
C. Either 1 or 2
D. $\quad 1$ and 2 both

## Answer: Option D

Explanation: Given: D is the brother of B .

From statement 1, we can detect that D is son of C (son of D is the grandson of C ).

From statement 2, we can detect that B is 'Female' (sister of D).

Therefore, B is daughter of C.
9. If $\mathrm{A}+\mathrm{B}$ means A is the father of B ; $\mathrm{A}-\mathrm{B}$ means A is the brother B ; $\mathrm{A} \% \mathrm{~B}$ means A is the wife of B and A $x \quad B$ means $A$ is the mother of $B$, which of the following shows that M is the maternal grandmother of T?
A. $\quad \mathrm{MxN} \% \mathrm{~S}+\mathrm{T}$
B. $\mathrm{MxN}-\mathrm{S} \% \mathrm{~T}$
C. $\mathrm{MxSS}-\mathrm{N} \% \mathrm{~T}$
D. $\mathrm{MxxxS} \% \mathrm{~T}$

Answer: Option A

Explanation:
$\mathrm{MxN} \rightarrow \mathrm{M}$ is the mother of N
$\mathrm{N} \% \mathrm{~S} \rightarrow \mathrm{~N}$ is the wife of S
and $\mathrm{S}+\mathrm{T} \rightarrow$ is the father of T .

Hence, M is the maternal grandmother of T .
10. Pointing to a photograph. Bajpai said, "He is the son of the only daughter of the father of my brother." How Bajpai is related to the man in the photograph?
A. Nephew
B. Brother
C. Father
D. Materna

Answer: Option D

Explanation:

The man in the photo is the son of the sister of Bajpai. Hence, Bajpai is the maternal uncle of the man in the photograph.
11. Deepak said to Nitin, "That boy playing with the football is the younger of the two brothers of the daughter of my father's wife." How is the boy playing football related to Deepak?
A. Son
B. Brother
C. Cousin
D. Brother-in-law

## Answer: Option B

Explanation: Father's wife $\rightarrow$ mother. Hence, the daughter of the mother means sister and sister's younger brother means brother. Therefore, the boy is the brother of Deepak.
12. Pointing a photograph X said to his friend Y , "She is the only daughter of the father of my mother." How X is related to the person of photograph?
A. Daughter
B. Son
C. Nephew
D. Cannot
be
decided

Answer: Option B

Explanation: 'The only daughter of the father of X's mother' means mother of X.

Hence X is the son of the lady in the photograph.

Note: Still have doubt like "How X is a male?" -
13. Veena who is the sister-in-law of Ashok, is the daughter-in-law of Kalyani. Dheeraj is the father of Sudeep who is the only brother of Ashok. How Kalyani is related to Ashok?
A. Mother-in-law
B. Aunt
C. Wife
D. None of these

## Answer: Option D

Explanation: Ashok is the only brother of Sudeep and Veena is the sister-in-law of Ashok. Hence Veena is the wife of Sudeep. Kalyani is the mother-in-law of Veena. Kalyani is the mother of Ashok.
14. If $A+B$ means $A$ is the sister of $B$; $A \times B$ means $A$ is the wife of $\mathrm{B}, \mathrm{A} \% \mathrm{~B}$ means A is the father of B and A - $B$ means $A$ is the brother of $B$. Which of the following means T is the daughter of P ?
A. $\quad \mathrm{P} \times \mathrm{Q} \% \mathrm{R}+\mathrm{S}$
B. $\quad \begin{aligned} & \mathrm{P} \times \mathrm{Q} \% \mathrm{R}-\mathrm{T} \\ & +\mathrm{S}\end{aligned}$
C. $\quad \mathrm{P} \times \mathrm{Q} \% \mathrm{R}+\mathrm{T}$
D. $\quad \mathrm{P} \times \mathrm{Q} \% \mathrm{R}+\mathrm{S}$

- S
+ T


## Answer: Option B

Explanation:
$P \times Q \rightarrow P$ is the wife of $Q$
$\mathrm{Q} \% \mathrm{R} \rightarrow \mathrm{Q}$ is the father of R
$R-T \rightarrow R$ is the brother of $T$
$\mathrm{T}+\mathrm{S} \rightarrow \mathrm{T}$ is the sister of S .
Therefore, T is the daughter of P .
15. Pointing to a woman, Abhijit said, "Her granddaughter is the only daughter of my brother." How is the woman related to Abhijit?
A. Sister
B. Grandmother
C. Mother-in-law
D. Mother

## Answer: Option D

Explanation: Daughter of Abhijit's brother $\rightarrow$ niece of Abhijit. Thus the granddaughter of the woman is Abhijit's niece.

Hence, the woman is the mother of Abhijit.
16. Amit said - "This girl is the wife of the grandson of my mother". How is Amit related to the girl?
A. Brother
B. Grandfather
C. Husband
D. Father-in-law

## Answer: Option D

Explanation: The girl is the wife of grandson of Amit's mother i.e., the girl is the wife of son of Amit. Hence, Amit is the father-in-law of the girl.
17. A and B are children of D. Who is the father of $A$ ? To answer this question which of the statements (1) and (2) is necessary?

1. C is the brother of A and the son of E .
2. F is the mother B .
A. Only (1)
B. Only (2)
C. Either (1) or
D. (1) and
(2)
both

Answer: Option B
Explanation: $A$ and $B$ are children of $D$.

From (1), C is the brother B and son of E.

Since, the sex of D and E are not known. Hence (1) is not sufficient to answer the question.

From (2). F is the mother of B. Hence, F is also the mother of $A$. Hence $D$ is the father of $A$. Thus, (2) is sufficient to answer the question.
18. Pointing towards a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man?
A. Mother
B. Grandmother
C. Sister
D. Daughter

## Answer: Option A

## Explanation:

Only daughter of my mother $\rightarrow$ myself.
Hence, the woman is the mother of the man
19. If $\mathrm{P} \$ \mathrm{Q}$ means P is the brother of Q ; $\mathrm{P} \# \mathrm{Q}$ means P is the mother of $\mathrm{Q} ; \mathrm{P} * \mathrm{Q}$ means P is the daughter of Q in $\mathrm{A} \# \mathrm{~B} \$ \mathrm{C}^{*} \mathrm{D}$, who is the father?
A. D
B. B
C. C
D. inadequate

## Answer: Option A

## Explanation:

$A$ is the mother of $B, B$ is the brother of $C$ and $C$ is the daughter of D . Hence, D is the father.

20. Introducing Salman, Aamir says, "She is the wife of only nephew of only brother of my mother." How Salman is related to Aamir?
A. Wife
B. Sister
C. Sister-in-law
D. $\begin{aligned} & \text { Data } \\ & \text { inadequate }\end{aligned}$

## Answer: Option A

Explanation: Brother of mother means maternal uncle. Hence only nephew of Aamir's maternal uncle means Aamir himself. Therefore Salman is the wife of Aamir.
21. If $\mathrm{A}+\mathrm{B}$ means A is the brother of $\mathrm{B} ; \mathrm{A} \% \mathrm{~B}$ means A is the father of B and $\mathrm{A} \times \mathrm{B}$ means A is the sister of B . Which of the following means M is the uncle of P ?
A. $\quad \mathrm{M} \% \mathrm{NxP}^{2}$
B. $\mathrm{NxP}_{\mathrm{P}} \% \mathrm{M}$
C. $\mathrm{M}+\mathrm{S} \% \mathrm{R} \%$
D. $\quad \mathrm{M}+\mathrm{K} \% \mathrm{TxP}$

## Answer: Option D

## Explanation:

$\mathrm{M}+\mathrm{K} \rightarrow \mathrm{M}$ is the brother of K
$\mathrm{K} \% \mathrm{~T} \rightarrow \mathrm{~K}$ is the father of T
$\mathrm{T} \times \mathrm{P} \rightarrow \mathrm{T}$ is the sister of P

Therefore, K is the father of P and M is the uncle of P .
22. Pointing to Varman, Madhav said, "I am the only son of one of the sons of his father." How is Varman related to Madhav?
A. Nephew
B. Uncle
C. $\begin{array}{llll}\text { Father } & \text { or } & & \text { D. }\end{array}$

## Answer: Option C

## Explanation:

Madhav is the only son of one of the sons of Varman's father $\rightarrow$ Either Varman is the father or uncle of Madhav.
23. Introducing a woman, Shashank said, "She is the mother of the only daughter of my son." How that woman is related to Shashank?
A. Daughter
B. Sister-in-law
C. Wife
D. Daughter-in-

## Answer: Option D

Explanation: The woman is the mother of Shashank's granddaughter. Hence, the woman is the daughter-in-law of Shashank.
24. If $\mathrm{A}+\mathrm{B}$ means B is the brother of A ; $\mathrm{A} \times \mathrm{B}$ means B is the husband of $\mathrm{A} ; \mathrm{A}-\mathrm{B}$ means A is the mother of B and $\mathrm{A} \% \mathrm{~B}$ means A is the father of $B$, which of the following relations shows that Q is the grandmother of T ?
A. $\quad \mathrm{Q}-\mathrm{P}+\mathrm{R} \% \mathrm{~T}$
B. $\quad \mathrm{P} \times \mathrm{Q} \% \mathrm{R}-\mathrm{T}$
C. $\mathrm{P} \times \mathrm{Q} \% \mathrm{R}+\mathrm{T}$
D. $\quad \mathrm{P}+\mathrm{Q} \% \mathrm{R}-\mathrm{T}$

## Answer: Option A

## Explanation:

$\mathrm{Q}-\mathrm{P} \rightarrow \mathrm{Q}$ is the mother of P
$\mathrm{P}+\mathrm{R} \rightarrow \mathrm{R}$ is the brother of P

Hence, $\rightarrow \mathrm{q}$ is the mother of R
$R \% T \rightarrow R$ is the father of $T$.

Hence, Q is the grandmother of T .
25. 1. A3P means A is the mother of P
2. A4P means A is the brother of P
3. A9P means A is the husband of P
4. A5P means A is the daughter of P

Which of the following means that K is the mother-in-law of M?
A. M9N3K4J
B. M9N5K3J
C. K5J9M3N
D. K3J9N4M

## Answer: Option B

Explanation: $\quad \mathrm{M} 9 \mathrm{~N} \rightarrow \mathrm{M}$ is the husband of N
$\mathrm{N} 5 \mathrm{~K} \rightarrow \mathrm{~N}$ is the daughter of K

Hence, $\rightarrow \mathrm{M}$ is the son-in-law of K
$\mathrm{K} 3 \mathrm{~J} \rightarrow \mathrm{~K}$ is the mother of J

Hence, $\rightarrow \mathrm{K}$ is a lady

Hence, $\rightarrow \mathrm{K}$ is the mother-in-law of M .
26. Pointing to a photograph Anjali said, "He is the son of the only son of my grandfather." How is the man in the photograph related to Anjali?
A. Brother
B. Uncle
C. Son
D. $\begin{aligned} & \text { Data } \\ & \text { inadequate }\end{aligned}$
is

## Answer: Option A

## Explanation:

The man in the photograph is son of Anjali's grandfather's son i.e., the son of Anjali's father. Hence, the boy is the brother of Anjali.
27. Pointing to a person, Deepak said, "His only brother is the father of my daughter's father". How is the person related to Deepak?
A. Father
B. Grandfather
C. Uncle
D. Brother-in-law

## Answer: Option C

Explanation:

Father of Deepak's daughter's father $\rightarrow$ Deepak's father.

Hence, the person in the brother of Deepak's father.

Therefore, the person is the uncle of Deepak.
28. P is the mother of $\mathrm{K} ; \mathrm{K}$ is the sister of D ; D is the father of J. How is P related to J?
A. Mother
B. Grandmother
C. Aunt
D. $\begin{aligned} & \text { Data } \\ & \text { inadequate }\end{aligned}$

Answer: Option B

Explanation: P is the mother of K
$K$ is the sister of $D$. $D$ is the father of $J$.

Therefore, J is the nephew or niece of K and P is the grandmother of J .
29. If $P \$ Q$ means $P$ is the father of $Q ; P$ \# $Q$ means $P$ is the mother of Q and P * Q means P is the sister of Q , then N \# L \$ P * Q shows which of the relation of Q to N ?
A. Grand son
B. $\quad \begin{aligned} & \text { Grand } \\ & \text { daughter }\end{aligned}$
C. Nephew
D. $\begin{aligned} & \text { Data } \\ & \text { inadequate }\end{aligned}$

Answer: Option D

## Explanation:

As the sex of Q is not known, hence, data is inadequate.
30. If A \$ B means A is the brother of B; A @ B means A is the wife of B ; A \# B means A is the daughter of B and $\mathrm{A} * \mathrm{~B}$ means A is the father of B , which of the following indicates that U is the father-in-law of P ?
A. $\mathrm{P} @ \mathrm{Q} \$ \mathrm{~T} \# \mathrm{U}$ * W
B. $\quad \mathrm{P} @ \mathrm{~W} \$ \mathrm{Q}$ * T
C. $\mathrm{P} @ \mathrm{Q} \$ \mathrm{~W}$ * T \# U
D. $\quad \begin{aligned} & \text { P @ Q \$ T \# W } \\ & * \mathrm{U}\end{aligned}$

Answer: Option A

## Explanation:

$\mathrm{P} @ \mathrm{Q} \rightarrow \mathrm{P}$ is the wife of Q
$\mathrm{Q} \$ \mathrm{~T} \rightarrow \mathrm{Q}$ is the brother of T
$T \# U \rightarrow T$ is the daughter of $U$

Hence, $\rightarrow \mathrm{Q}$ is the son of $\mathrm{U} \ldots$ (3)
$U^{*} \mathrm{~W} \rightarrow \mathrm{U}$ is the father of W .

From (1) and (3), U is the father-in-law of $P$.
31. Introducing a man, a woman said, "He is the only son of the mother of my mother." How is the woman related to the man?
A. Mother
B. Sister
C. Niece
D. Maternal aunt

## Answer: Option C

Explanation: The man is the only son of the mother of the woman. Hence, the man is the maternal uncle of the woman. So, the woman is the niece of the man.
32. Pointing to Gopi, Nalni says, "I am the daughter of the only son of his grandfather." How Nalni is related to Gopi?
A. Niece
B. Daughter
C. Sister
D. $\begin{aligned} & \text { Cannot be } \\ & \text { determined }\end{aligned}$

Answer: Option C

Explanation: Nalni is the daughter of the only son of Gopi's grandfather. Hence, it's clear that Nalni is the sister of Gopi.
33. A's son B is married with C whose sister D is married to E the brother of B . How D is related to A ?
A. Sister
B. Daughter's-in-
C. Sister-in-law
D. Cousin

Answer: Option B

## Explanation:

Since E is the brother of B

Therefore, A is the father of E
but $D$ is the wife of $E$.

Hence, D is the daughter-in-law of A.
34. Pointing to a lady a person said, "The son of her only brother is the brother of my wife." How is the lady related to the person?
A. Maternal aunt
B. Grandmother
C. Sister of
father-in-law
D. None of these

## Answer: Option C

Explanation: Brother of person's wife $\rightarrow$ brother-in-law of the person. Hence, the son of lady's brother
is brother-in-law of the person.

Therefore, the brother of the lady is the father-in-law of the person. Hence, the lady is the sister of the person's father-in-law.
35. 1. B5D means $B$ is the father of $D$.
2. B9D means $B$ is the sister of $D$.
3. B4D means $B$ is the brother of $D$.
4. B3D means B is the wife of D.

Which of the following means F is the mother of K ?
A. F3M5K
B. F5M3K
C. F9M4N3K
D. F3M5N3K

Answer \& Explanation
Answer: Option A
Explanation:
$\mathrm{F} 3 \mathrm{M} \rightarrow \mathrm{F}$ is the wife of M
$\mathrm{M} 5 \mathrm{~K} \rightarrow \mathrm{M}$ is the father of K

Therefore, F is the mother of K.
36. A \$ B means $A$ is the father of $B$; $A$ \# $B$ means $A$ is the sister of $B ; A * B$ means $A$ is the daughter of $B$ and $\mathrm{A} @ \mathrm{~B}$ means A is the brother of B . Which of the following indicates that M is the wife of Q ?
A. $\quad \mathrm{Q}$ \$ R \# T @
B. $\quad \mathrm{Q} \$ \mathrm{R} @ \mathrm{~T}$ \#
C. $\mathrm{Q} \$ \mathrm{R} * \mathrm{~T} \# \mathrm{M}$
D. $\quad \mathrm{Q} \$ \mathrm{R} @ \mathrm{~T}$ *

Answer \& Explanation

Answer: Option D

Explanation:
$\mathrm{Q} \$ \mathrm{R} \rightarrow \mathrm{Q}$ is the father of R
$R @ T \rightarrow R$ is the brother of $T$

Hence, $\rightarrow \mathrm{Q}$ is the father of T
$\mathrm{T} * \mathrm{M} \rightarrow \mathrm{T}$ is the daughter of M

Hence, $\rightarrow \mathrm{M}$ is the mother of T

Hence, M is the wife of Q .
37. If A \$ B means A is the brother of $\mathrm{B} ; \mathrm{B} * \mathrm{C}$ means B is the son of $\mathrm{C} ; \mathrm{C}$ @ D means C is the wife of D and A \# D means A is the son of D , how C is related to A?
A. $\begin{aligned} & \text { Maternal } \\ & \text { grandmother }\end{aligned}$
B. Maternal aunt
C. Aunt
D. Mother

## Answer: Option D

Explanation:

A $\$ B \rightarrow A$ is the brother of $B$
$\mathrm{B} * \mathrm{C} \rightarrow \mathrm{B}$ is the son of C

Hence, $\rightarrow \mathrm{A}$ is the son of C
$\mathrm{C} @ \mathrm{D} \rightarrow \mathrm{C}$ is the wife of D

Hence, $\rightarrow \mathrm{C}$ is the mother of A .
38. Pointing to a girl Sandeep said, "She is the daughter of the only sister of my father." How is sandeep related to the girl?
A. Uncle
B. Cousin
C. Father
D. Grandfather

## Answer: Option B

Explanation: The girl is the daughter of the sister of Sandeep's father. Hence, the girl is the cousin or Sandeep is the cousin of the girl.
39. Pointing to a boy in the photograph Reena said, "He is the only son of the only child of my grandfather." How Reena is related to that boy?
A. Mother
B. Sister
C. Aunt
D. Cannot be

Answer: Option B

Explanation: The boy in the photograph is the only son of Reena's grandfather's only son; i.e., the boy is the only son of Reena's father.

Hence, the boy is the brother of Reena or Reena is the sister of the boy.
40. 1. $\mathrm{A} * \mathrm{~B}$ means A is the sister of B
2. $A \$ B$ means $B$ is the mother of $A$
3. $A+B$ means $A$ is the brother of $B$
4. $\mathrm{A}=\mathrm{B}$ means B is the father of A .

Which of the following means M is the maternal uncle of N ?
A. $\quad \mathrm{M}=\mathrm{P}+\mathrm{Q} * \mathrm{~N}$
B. $\mathrm{N}+\mathrm{P}=\mathrm{Q} * \mathrm{M}$
C. $\quad N^{*} P \$ Q^{*} M$
D. None of these

## Answer: Option D

Explanation:
No answer description available for this question.
41. If Mx N means M is the daughter of $\mathrm{N} ; \mathrm{M}+\mathrm{N}$ means M is the father of $\mathrm{N} ; \mathrm{M} \% \mathrm{~N}$ means M is the mother of N and $\mathrm{M}-\mathrm{N}$ means M is the brother of N then $\mathrm{P} \%$ $\mathrm{Q}+\mathrm{R}-\mathrm{T} \times \mathrm{K}$ indicates which relation of P to K ?
A. Daughter-in-
B. Sister-in-law
C. Aunt
D. None of these

## Answer: Option D

Explanation:
$\mathrm{P} \% \mathrm{Q} \rightarrow \mathrm{P}$ is the mother of Q
$\mathrm{Q}+\mathrm{R} \rightarrow \mathrm{Q}$ is the father of R
$\mathrm{R}-\mathrm{T} \rightarrow \mathrm{R}$ is the brother of T

Hence, $\rightarrow \mathrm{Q}$ is the father of T
$\mathrm{T} \times \mathrm{K} \rightarrow \mathrm{T}$ is the daughter of K
Hence, $\rightarrow \mathrm{Q}$ is the husband of K .

Therefore, P is the mother-in-law of K .
42. If $\mathrm{P}+\mathrm{Q}$ means P is the brother of $\mathrm{Q} ; \mathrm{P} \times \mathrm{Q}$ means P is the father of Q and $\mathrm{P}-\mathrm{Q}$ means P is the sister of Q , which of the following relations shows that I is the niece of K ?
A. $\mathrm{K}+\mathrm{Y}+\mathrm{Z}-\mathrm{I}$
B. $\mathrm{K}+\mathrm{YxI-Z}$
C. $Z-I x Y+K$
D. $\mathrm{K} \times \mathrm{Y}+\mathrm{I}-\mathrm{Z}$

## Answer: Option B

Explanation:
$\mathrm{K}+\mathrm{Y} \rightarrow \mathrm{K}$ is the brother of Y
$\mathrm{Y} x \mathrm{I} \rightarrow \mathrm{Y}$ is the father of I

Hence, $\rightarrow \mathrm{K}$ is the uncle of I
and $\mathrm{I}-\mathrm{Z} \rightarrow \mathrm{I}$ is the sister of Z

Hence, $\rightarrow I$ is the niece of $K$.
43. Pointing towards a girl, Abhisek says, "This girl is the daughter of only a child of my father." What is the relation of Abhisek's wife to that girl?
A. Daughter
B. Mother
C. Aunt
D. Sister

## Answer: Option B

Explanation:
Only the child of my father means 'Abhisek' himself. This means the girl is the daughter od Abhisek. Hence, Abhisek's wife is the mother of the girl.
44. If $A \$ B$ means $B$ is the father of $A ; A \# B$ means $B$ is the mother of $A ; A * B$ means $B$ is the sister of $A$ and A @ B means B is the husband of $A$, which of the following indicates that N is the grandmother of P ?
A. $\quad \mathrm{P} * \mathrm{Q} \# \mathrm{M} \$ \mathrm{~N}$
B. $\quad \mathrm{P} @ \mathrm{Q}$ \$ M \#
C. $\quad \mathrm{P} \# \mathrm{Q} \$ \mathrm{~N}^{*} \mathrm{M}$
D. None of these
45. Anupam said to a lady sitting in a car, "The only daughter of the brother of my wife is the sister-in-law of the brother of your sister." How the husband of the lady is related to Anupam?
A. Maternal uncle
B. Uncle
C. Father
D. Son-in-law

## Answer: Option D

## Explanation:

Anupam's son-in-law is the brother of the lady who was sitting in the car. Hence, the husband is also the son-in-law of Anupam.
46. If $\mathrm{P}+\mathrm{Q}$ means P is the brother of $\mathrm{Q} ; \mathrm{P} \times \mathrm{Q}$ means P is the wife of Q and $\mathrm{P} \% \mathrm{Q}$ means P is the daughter of Q then which of the following means D is the uncle of A?
A. $\mathrm{A} \% \mathrm{BxC}+\mathrm{D}$
B. $\mathrm{A} \times \mathrm{B}+\mathrm{C} \% \mathrm{D}$
C. $\mathrm{A}+\mathrm{C} \% \mathrm{BxD}$
D. None of these

## Answer: Option D

47. A is the son of $\mathrm{C} ; \mathrm{C}$ and Q are sisters; Z is the mother of Q and P is the son of Z . Which of the following statements is true?
A. P and A are cousins
B. P is the maternal uncle of A
C. Q is the maternal grandfather of A
D. C and P are sisters

## Answer: Option B

Explanation:
C and Q are sisters and A is the son of C . Hence, C is the mother of A or Z is the mother Q .

Hence, Z is the maternal grandmother of $\mathrm{A} . \mathrm{P}$ is the son of $Z$. Hence, $P$ is the maternal uncle of $A$.
48. M is the father of N who is the son of V . In order to know the relation of $M$ to $P$, which of the statement/statements is/are necessary?

1. P is the brother of V .
2. The daughter of N is the granddaughter of V .
A. Only (1)
B. Only (2)
C. $\begin{aligned} & \text { Either (1) or } \\ & (2)\end{aligned}$
D. ${ }_{\text {both }}^{\text {(1) and }}$ (2)

## Answer: Option A

## Explanation:

M is the father of N and N is the son of V .

Hence, V is the mother of N .

From (1), P is the brother of V
Therefore, M is the brother-in-law of P because V is the wife of M .

From (2), the daughter of N , is the granddaughter of V. From this we do not get any relation of $M$ to $P$.
49. If $X+Y$ means $X$ is the daughter of $Y$; $X-Y$ means $X$ is the brother of $Y$; $X \% Y$ means $X$ is the father of $Y$ and $\mathrm{X} \times \mathrm{Y}$ means X is the sister of Y . Which of the following means I is the niece of J ?
A. $\mathrm{J}-\mathrm{N} \% \mathrm{Cx}$ I
B. $\mathrm{IxC}-\mathrm{N} \% \mathrm{~J}$
C. $\mathrm{J}+\mathrm{MxC} \% \mathrm{I}$
D. $\quad \mathrm{IxC}+\mathrm{N}-\mathrm{J}$

Answer: Option D

Explanation:
I $\times \mathrm{C} \rightarrow \mathrm{I}$ is the sister of C
$\mathrm{C}+\mathrm{N} \rightarrow \mathrm{C}$ is the daughter of N
and $\mathrm{N}-\mathrm{J} \rightarrow \mathrm{N}$ is the brother of I .
Hence, $I$ is niece of $J$.

Each of these questions is based on the following information:

1. $\mathrm{A}+\mathrm{B}$ means A is the mother of B .
2. $\mathrm{A}-\mathrm{B}$ means A is the sister of B .
3. $A * B$ means $A$ is the father of $B$.
4. $A \beta B$ means $A$ is the brother of $B$.
5. Which of the following means Q is the grandfather of P ?
A. $\quad \mathrm{P}+\mathrm{N}^{*}$
B. $\quad \mathrm{Q}^{*} \mathrm{~N}^{*}$
C. $\quad \mathrm{Q} \beta \mathrm{M} \beta$
D. None of

Answer: Option D
2. Which of the following means that N is the maternal uncle of M ?
N $\beta$ P -
A. $\quad L+E-$
M
B. $\quad \begin{aligned} & \mathrm{N}-\mathrm{Y}+ \\ & \mathrm{A} \beta \mathrm{M}\end{aligned}$
C. $\quad \begin{aligned} & \mathrm{M}-\mathrm{Y} \\ & \mathrm{P}-\mathrm{N}\end{aligned}$
D. $\quad \begin{aligned} & \mathrm{N} \beta \mathrm{C}+ \\ & \mathrm{F} * \mathrm{M}\end{aligned}$

Answer: Option A
Explanation:
$\mathrm{N} \beta \mathrm{P} \rightarrow \mathrm{N}$ is the brother of P
$\mathrm{P}-\mathrm{L} \rightarrow \mathrm{P}$ is the sister of L
$\mathrm{L}+\mathrm{E} \rightarrow \mathrm{L}$ is the mother of E
$E-M \rightarrow E$ is the sister of $M$.

Hence, $L$ is the mother of $M, P$ is the maternal aunt of M and N is the maternal uncle of M .

