Important Results:

Mother"s (or) father"s son - Brother or Self

Mother"s (or) Father"s Daughter - Sister or Self

Mother"s brother - Maternal Uncle

Father"s Brother - Paternal uncle

Mother"s (or) Father"s sister - Aunt

Mother"s (or) Father"s father - Grand father

Mother"s (or) Father"s mother - Grand mother

Son"s wife - Daughter in law

Daughter"s husband - Son in law

Husband"s (or) Wife"s father - Father in law

Husband"s (or) Wife"s mother - Mother in law

Husband"s (or) Wife"s brother - Brother in law

Husband"s (or) Wife"s sister - Sister in law

Sister"s husband - Brother in law

Brother"s (or) Sister"s son - Nephew

Brother"s (or) Sister"s daughter - Niece

Types of Problems:

1. Single Person Blood Relations

2. Mixed Blood Relations

3. Coded Blood Relations

1. Single Person Blood Relations

These are Relations between two people only.
Break the given sentence at **is/was/as** and resolve it from last point to **is/was/as** to get easy solution for the problem. In most cases in this type of questions you can assume gender by name.
Carefully observe the given examples.

Ex - 1: Pointing to a lady Ravi said," She <u>is</u> the only daughter of the father of my sister"s brother". How is she related to Ravi?
Solution:
Break the given sentence at **is**. From the last, in the view of Ravi,
My sister"s brother – brother
Father of brother – father
Daughter of father – sister

Ex-2: John introduces Mary as "the daughter of the only son of my father"s wife." How is Mary related to john?

Ex-3: Pointing to a man in the photograph, a Woman says," His mother"s only daughter is my mother". How is man related to woman?

Ex-4: Introducing Suresh, Kalpana said," His brother"s father is the only son of my grandfather". How is Kalpana related to Suresh?

2. Mixed Blood Relations

In this, mutual blood relations depending on more than two persons mentioned. These type of problems can be solved with the help of diagrams.

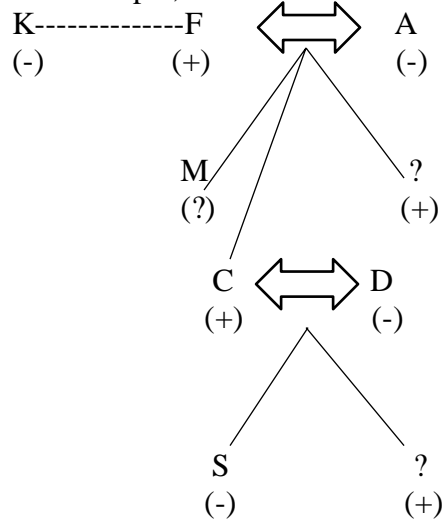Draw a family tree with following assumption.
(a) Vertical or diagonal lines should be used to represent parent-child relationships.
(b) A double horizontal line (like①) should be used to represent marriages.
(c) A dashed line should be used to represent brother or sister relationships.

[Note: A part from dash-lines, brother or sister relationships are also easily established if two persons have the same root (i.e. parents depicted by vertical or diagonal lines.)]
(d) Put a + sign before someone who is a male and a – sign before someone who is a female.
(e) Whenever something is not known put a „?" Mark or a dash „___" or some such symbol (#,*,@ etc.,) at the place.

For example, consider the following diagram:

K-------------F <=> A
(-)   (+)   (-)

M   ?
(?)   (+)

C <=> D
(+)   (-)

S   ?
(-)   (+)

The above diagram tells us that:
(i)   F and A are a couple; F is the husband while A is the wife.
(ii) F has a sister K.
(iii) The couple, F and A has three children: M, C and another son, whose name is not known. C is also a son while the sex of M is not known.
(iv) M and the other unknown son are unmarried while C is married to D.
(v) The couple, C and D, has a daughter S and a son whose name is not known,

To solve such problem **Remember!!!**
i) Read the data quickly. This would give you a „feel" of the problem.
ii) Separate the actual information, the universal statement or the negative information.
iii) Each of the actual information would give you some information that can be used to draw a part of the family tree. **It is advisable to begin with a sentence that gives information about parent-child relationship. Grandfather-grandson relationships and brother-sister relationships should be touched later. (Very imp)**
iv) Go on reading the actual information, one by one, and make diagrams for each of these information. These diagrams would be like parts or components of the final family tree. Simultaneously, try your best that you do not draw a new diagram for every new information that you read. Instead, try to „add" to the existing diagram on reading a new information. The universal statement and the negative information would be of immense use in this regard.
v) Finally, with the help of all the given information etc. Combine all these components into a family tree and answer the questions.

EX – 5: A and B are brothers and C and D are sisters. A"s son is D"s brother. How is B related to C?

EX – 6: Read the information carefully and answer the questions given below it.
1. A family consists of 6 members P, Q, R, X, Y, and Z.
2. Q is the son of R but R is not mother of Q.
3. P and R are married couple.
4. Y is the brother of R, X is the daughter of P.
5. Z is the brother of P.

Questions:
1. Who is the brother in law of R?
2. How many female members are there in the family?
3. How is Q related to X?
4. How is Y related to P?

EX - 7:
Directions: Read the following information carefully and answer the questions given below:

All the six members of a family A, B, C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are a married couple. E is the brother of C. D is the daughter of A. F is the brother of B.

1. How many male members are there in family?
A. 1   B. 3   C. 2   D. 4   E. 5

2. Who is the mother of B?
A. D   B. F   C. E   D. A   E. None of these

3. How many children do A have?
A. One   B. Two   C. Three   D. Four   E. None of these

4. Who is the wife of E?
A. A   B. F   C. B   D. Can"t be determined   E. None of these

5. Which of the following is a pair of females?
A. AE   B.BD   C. DF   D. AD   E. None of these

6. How is E related to D?
A. Father   B. Brother   C. Uncle   D. Can"t be determined   E. None of these

EX - 8:
Directions (Q.1 to 4): Read the following information carefully and answer the questions that follow:
In a family, there are six members – A, B, C, D, E and F. A and B are a married couple, A being the male member. D is the only son of C, who is the brother of A. E is the sister of D. B is the daughter-in-law of F, whose husband has died.

1. How is F related to A?
A. Mother   B. Sister-in-law   C. Sister   D. Mother-in-law   E. None of these

2. How is E related to C?

A. Sister   B. daughter   C. Cousin   D. Aunt   E. Mother

3. Who is C to B?
A. Brother   B. Brother-in-law   C. Son-in-law   D. Nephew   E. None of these

4. How many male members are there in the family?
A. Two   B. Three   C. Four   D. Five   E. One

3. Coded Blood Relations

In this type, relationships represented by codes and symbols like + , - , / , *. You have to analyze the required relationship based on the given code. In this also you may need to draw the family tree of problem to solve it. Use the same representation used in mixed blood relations.
In the coding equation better to solve the code from last letter.
Also, in most cases in these type of questions the gender of the last person is unknown.

9 : If P+Q means P is husband of Q, P/Q means P is the sister of Q, P*Q means P is the son of Q. how is D related to A in D*B+C/A?
Solution:
C/A   – C is sister of Q.
B+C/A   – B is brother in law of A (sister"s husband – brother in law.)
D*B+C/A   – D is nephew of A (sister"s husband"s son means sister"s son i.e. nephew).
So, answer is Nephew.

10: P + Q means P is the brother of Q; P - Q means P is the mother of Q and P * Q means P is the sister of Q. Which of the following means M is the maternal uncle of R?
A. M + K + R   B. M - R + K   C. M + K – R   D. None of these

11: If A + B means A is the brother of B; A / B means A is the father of B and A * B means A is the sister of B, which of the following means M is the uncle of P?

12: P x Q means P is the sister of Q ;
P + Q means P is the father of Q ;
P - Q means P is the mother of Q.
Which of the following means S is the aunt of T?

A. T x M + S   B. S + T x M   C. S x M + T
D. S x M + R – T   E. None of these

13: If A + B means A is the son of B ;
A - B means A is the husband of B ;
A x B means A is the sister of B,
then which of the following shows the relation Q is the maternal uncle of P ?

A. P + B - R x Q   B. P - B + R x Q   C. P + B x R -Q
D. P x B - R + Q   E. None of these

14: If A + B means A is the mother of B ;
A / B means A is the brother of B ;
A x B means A is the son of B and
A - B means A is the daughter of B,
which of the following means C is the niece of D ?

A. D - C
B. D x P - C
C. C - P / D
D. P + D / C
E. D - P / C