SELF LEARNING MATERIAL
UNIT-2
Blood Relations

2.0   OBJECTIVES:

After reading this unit, you will be able to:

• Blood Relation Based on Conversation

• Blood Relation Based on Puzzles

• Symbolically Coded Blood Relationship

2.1   INTRODUCTION:

Blood relation between two individuals is defined as a relation between them by the virtue of their birth rather than by their marriage or any other reasons.

Blood relation questions involve analysis of information showing the blood relationship among members of the family. In this, a chain of relationships is given in the form of information and on the basis of this information, relation between any two members of the chain is asked from the candidate. Candidates are supposed to be familiar with the knowledge of different relationships in the family. Generally, the questions based on blood relation deal with the hierarchical structure of the family (i.e., seven generations of the family) which is generally two generation above and two generation below the current generation.

1 st stage : GRANDPARENTS (Grandfather, Grandmother, Granduncle, Grandaunt)

2 nd stage: PARENTS & IN-LAWS (Father, Mother, Uncle, Aunt, Father-in-law, Mother-in-law)

3 rd stage : SIBLINGS, SPOUSE & IN-LAWS (Brother, Sister, Cousin, Wife, Husband, Brother-in-law, Sister-in-law)

4 th stage : CHILDREN & IN-LAWS (Son, Daughter, Niece, Nephew, Son-in-law, Daughter-in-law)

5 th stage : GRANDCHILDREN (Grandson, Granddaughter)

Mother's or Father's son :   Brother
Mother's or Father's daughter :   Sister
Mother's or Father's brother :   Uncle
Mother's or Father's sister :   Aunt
Mother's or Father's mother :   Grandmother
Mother's or Father's father :   Grandfather
Sister's or Brother's son :   Nephew
Sister's or Brother's daughter :   Niece
Uncle or Aunt's son or daughter :   Cousin
Son's wife :   Daughter-in-law
Daughter's husband :   Son-in-law
Husband's or Wife's sister :   Sister-in-law
Husband's or Wife's brother :   Brother-in-law
Sister's husband :   Brother-in-law
Brother's wife :   Sister-in-law
Children of same parents :   Siblings (could be all brothers, all sisters or some brothers and some sisters)
Children :   Son, Daughter
Children's Children :   Grandchildren(Grandson, Granddaughter)
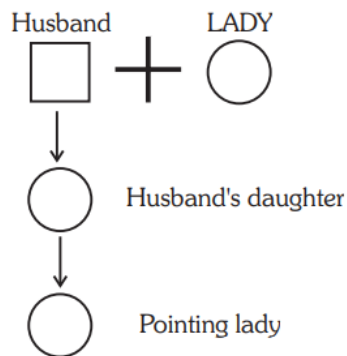
Symbols to represent relationship:

Relationship	Symbol
Men	Ⓐ
Women	Ⓑ
Husband and wife	+
Brother – sister or cousins	⟷
Generation (father and son)	↓

2.2 Blood Relation Based on Conversation

In such questions, a person gives information to another person either about a particular person in a photograph or a person present in front of him. Using this information, a candidate is required to establish a relationship between a given person and the person in the photograph/the person about whom the information is provided.

Example 2.1: Pointing to a woman, a lady said, "she is the daughter of my husband's daughter". How is the woman related to this lady?

Solution: Grand daughter

CHECK YOUR PROGRESS 2.1:

1. Amit said to Mohan, "That boy in red shirt is younger of the two brothers of the daughter of my father's wife". How is the boy in red shirt related to Amit?

2. Gopal said, pointing to Govind, "His father is my father's only son". How is Gopal related to Govind?

3. A woman said to a man, "The daughter of your only sister is the sister of my husband". What is the relation of man's sister to the woman?

4. Pointing to a man in a photograph, a man said to a woman, "His mother is the only daughter of your father". How is the woman related to the man in the photograph?

5. Pointing to a lady a man said, "The son of her only brother is the brother of my wife." How is the lady related to the man?
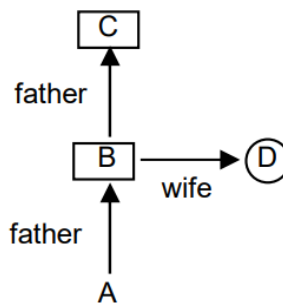
2.3 Blood Relation Based on Puzzles

In such questions, more than one information in the form of some puzzle is given and based on the information's, a candidate is required to deduce the relation between the two individuals.

Example 2.2: f A's father is B, C is the father of B and D is A's mother, then How is C related to D?

Solution:

A's father is B and mother is D. Therefore D is B's wife and C is the father of B. Hence C is D's father-in-law.

CHECK YOUR PROGRESS 2.2:

1. If A is B's sister, C is B's mother, D is C's father and E is D's mother, then how is A related to D?

2. Rajesh is the brother of Ankit. Shano is the sister of Shubham. Ankit is the son of Shano. How is Rajesh related to Shano?

Directions (Example Nos. 3-5) Read the following information carefully and answer the questions given below. There are six children playing football, namely P,Q,R, S, T and U. P and T are brothers, U is the sister of T. R is the only son of P's uncle, Q and S are the daughters of the only brother of R's father.

3. How is R related to U?

4. How many male players are there?

5. How many female players are there?

2.4 Symbolically Coded Blood Relationship

In such questions certain symbols and codes such as +, x, %, $, * etc., are used to present information in coded form. The candidate is required to decode the information with the help of symbols to be used for making family diagram and then find out the relationship between the two required persons.

Example 2.3: Study the following information carefully:

A + B means A is the son of B.

A − B means A is the daughter of B.

A × B means A is the father of B.

A ÷ B means A is the mother of B.

If M × N + O − P ÷ Q, then how is M related to Q?

Solution: M × N + O − P ÷ Q means M is the father of N, N is the son of O, O is the daughter of P, P is the mother of Q.

M is the father of N and N is the son of O means M is the husband of O.

O is the daughter of P and P is the mother of Q means O is the sister of Q.

M is the husband of O & O is the sister of Q means M is the brother-in-law of Q.

CHECK YOUR PROGRESS 2.3:

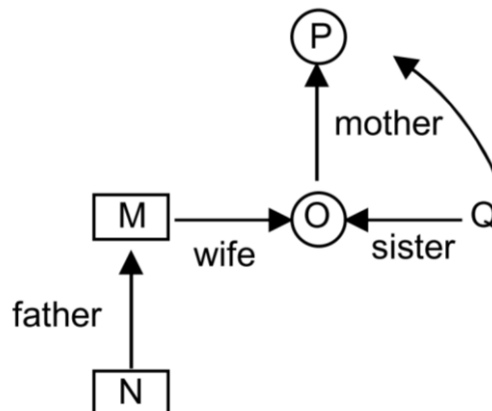1. A + B means A is the son of B. A − B means A is the daughter of B. A × B means A is the father of B. A ÷ B means A is the mother of B. Which of the following means S is the son-in- law of P?

(A) P + Q ÷ R × S − T

(B) P × Q ÷ R − S + T
(C) P + Q × R − S ÷ T
(D) P × Q − R ÷ S × T
(E) P + Q − R ÷ S × T

Directions for questions 2 to 5: Use the relations defined below and answer the following questions.
A + B means A is the mother of B.
A − B means A is the sister of B.
A × B means A is the father of B.
 A ÷ B means A is the son of B.
A = B means A is the brother of B.
A ≠ B means A is the daughter of B.

2. Which of the following means P is the aunt of Q?

(A) P − R ÷ Q
(B) P + R × Q
(C) P ≠ R × Q
(D) P − R + Q
(E) P × R = Q

3. Which of the following means, S is the son of T's daughter?

(A) T × M + S + N
(B) T × M + S = N
(C) T + M × S − N
(D) S ÷ M ÷ T − N
(E) T × M ÷ S ≠ N

4. Which of the following means W is the uncle of Z?

(A) W × A − B + Z
(B) W = A + B − Z
(C) W = A + B + Z
(D) W − A + B − Z
(E) W × A × B = Z

5. Which of the following means C is the grandfather of both D and E?

(A) C × A ÷ D − E
(B) C + A + D ≠ E
(C) C ÷ A ≠ D = E
(D) C × A × D − E
(E) C ÷ A × D × E

 # # Answers are given at the end of the document.

SUMMARY:

• Blood Relation questions can be based on conversation

• Blood Relation questions can be based on Puzzles

• Blood Relation questions can be based on Symbolically Coded

• To understand and analysis questions under all relations in 5 generations

• Creating a family tree using data for easy solving of questions.

2.5 Glossary:

Puzzles :- cause (someone) to feel confused because they cannot understand something.

Symbolically Coded:- Instruction written in an assembly language, using symbols for operations and addresses

2.6 Suggested Readings:

• Quantitative Aptitude for Competitive Examinations by R.S.Agarwal. Published by S. CHAND
• Study material for CAT, SAT, GRE, GMAT by TIME, CareerLauncher and IMS etc.
• Quantitative Aptitude by Pearson Publications

2.7 Practice exercise:

1. 'A' is B's brother. "I have as many sisters as brothers", tells 'B' to one of her friends. How many brothers and sisters are there in this family?

(a)Two brothers and two sisters
(b) One brother and one sister
(c)One brother and two sisters
(d) Two brothers and one sister

2. Showing the lady in the park, Vineet said, "She is the daughter of my grandfather's only son." How is Vineet related to that lady?

(a) Brother
(b) Cousin
(c) Father
(d) Uncle

3. A man showed a boy next to him and said, "He is the son of my wife's sister-in-law but I am the only child of my parents." How is my son related to him?

(a) Cousin
(b) Brother
(c) Uncle
(d) Nephew

4. Pointing towards a girl, Anurag says, "This girl is the daughter of the only child of my father". What is the relation of Anurag's wife with the girl?

(a) Sister
(b) Aunt
(c) Daughter
(d) Mother

5. Sunil is the son of Kesav. Simran, Kesav's sister, has a son Maruti and daughter Sita. Prem is the maternal uncle of Maruti. How is Sunil related to Maruti?

(a) Cousin
(b) Uncle
(c) Brother
(d) Nephew

6. D is B's father, B is C's sister-in-law and A's daughter. How is A related to D?

(a) Wife
(b) Mother
(c) Father
(d) Husband

7. A's mother is sister of B and daughter of C. D is the daughter of B and sister of E. How is C related to E?

(a)Sister
(b) Mother
(c) Father
(d) Grandmother or grandfather

Directions (Q. Nos. 8-12) Read the following information carefully to answer the questions that follow.
1. Ruchi and Suresh are married couple having two children, Manisha and Divya.
2. Divya is married to Amit who is the son of Gauri and Tarun.
3. Nishi is the daughter of Amit
4. Karuna, who is Amit's sister, is married to Harish and has two sons, Vijay and Parikshit.
5. Gauri is the grandmother of Parikshit
6. Manisha is the maternal aunt of Nisha.

8. What is the difference between the number of females and the number of males in the second generation?

(a) 5
(b) 1
(c) 2
(d) 3

9. Which of the following is true?

(a) Tarun is Divya's maternal uncle.
(b) Vijay is the son of Manisha
(c) Gauri is Harish's mother-in-law

(d) Nishi is the cousin of Karuna

10. How is Karuna related to Divya?

(a) Aunt
(b) Sister-in-law
(c) Mother
(d) Sister

11. What is the relationship between Vijay and Nishi?

(a) Cousins
(b) Husband-Wife
(c) Father-Daughter
(d) None of these

12. Parikshit is the member of which generation?

(a) 4th
(b) 1st
(c) 2nd
(d) 3rd

Directions (Q. Nos. 13-17) Read the following information carefully to answer the questions given below.
I.   There are six members in a family.
II.   The members are A, B, C, D, E and F.
III.   D is the daughter of F who is the mother of E.
IV.   E is the daughter of A.
V.   A is the son of C.
VI.   The family consists of one couple who has their parents and their children.

13. What relationship do D and E bear to each other?

(a) Mother and son
(b) Sister and brother
(c) Sisters
(d) Grandmother and granddaughter

14. Who are the male members in the family?

(a) A, B and D
(b) C and F
(c) A and C
(d) Cannot be determined

15. Which of the following pairs is the parents of the children?

(a) BF
(b) CF
(c) BC
(d) None of these

16. How many female members are there in the family?

(a) 4
(b) 3
(c) 2
(d) None of these

17. Which of the following pairs is the parents of the couple?

(a) CF
(b) AF
(c) BC
(d) AB

18. 'A + B' means that A is the father of B,
'A - B' means that A is the wife of B
'A x B' means that A is the brother of B, and
'A 4- B' means that A is the daughter of B.
If'S 4- T x U + Z', which of the following is true?

(a) S is the daughter of Z
(b) Z is the aunt of S
(c) S is the aunt of Z
(d) None of these

19. If S - T + Z, then which of the following statements is true?

(a) S is the mother of Z
(b) Z is the wife of S
(c) Sis the aunt of Z
(d) S is the sister of Z

Directions (Q. Nos. 20-24) Read the information carefully and answer the following questions.
If 'A + B' means A is the father of B.
If 'A x B' means A is the sister or B.
If 'A $ B' means A is the wife of B.
If 'A % B' means A is the mother of B.
If 'A 4- B' means A is the son of B.

20. What should come in place of the question mark, to establish that J is the brother of T in the expression? J 4- P % H ? T % L

(a) x
(b) 4-
(c)$
(d) Either + or X
(e) None of these

21. Which among the given expressions indicate that M is the daughter of D

(a) L% R $ D + TxM
(b) L + R $ D + M xT
(c) L% R% D + T4-M
(d) L$D-R°/oM4-T
(e) None of these

22. Which among the following options is true, if the expression 'I + T % J x L 4- K' is definitely true?

(a) Lis the daughter of T
(b) K is the son-in-law of I
(c) I is the grandmother of L
(d) J is the brother of L
(e) None of these

23. Which among the following expressions is true, if Y is the son of X is definitely false?

(a) W%LxTx Y+X
(b)W+ LxTxY4-X
(c)X+ LxTxY4-W
(d)W$X + L + Y + T
(e)W%X+TxY4-L

24. What should come in place of the question mark, to establish that T is the sister-in-law of Q in the expression R%TxP? Q+V

(a)+
(b)%
(c) x
(d) $
(e) Either $ or x

25. Pinky, who is Victor's daughter, say to Lucy, "Your mother Rosy is the younger sister of may father, who is the third child of Joseph". How is Joseph related to Lucy?

(a) Father-in-law
(b) Father
(c) Maternal uncle
(d) Grandfather

ANSWERS:
CHECK YOUR PROGRESS 2.1

1. Brother
2. Father
3. Mother –in-law
4. Mother
5. Sister of father-in-law

CHECK YOUR PROGRESS 2.2

1. Grand daughter
2. Son

3. Cousin
4. 3
5. 3

CHECK YOUR PROGRESS 2.3

1. B
2. D
3. B
4. B
5. D

Practice exercise 1.12
1. c
2. a
3. a
4. d
5. a
6. a
7. c
8. b
9. c
10. b
11. a
12. d
13. c
14. d
15. d
16. a
17. c
18. d
19. a
20. a
21. b
22. b
23. d
24. d
25. a