

## 5. BLOOD RELATIONS

In these tests, the success of a candidate depends upon the knowledge of the blood relations, some of which are summarized below to help solve these tests.

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 father	Grandfather
Mother's or father's mother	Grandmother
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
Brother's son	Nephew
Brother's daughter	Niece
Uncle or aunt's son or daughter	Cousin
Sister's husband	Brother-in-Law
Brother's wife	Sister-in-Law
Grandson's or Grand daughter's daughter	Great grand daughter

### TYPE 1 : DECIPHERING JUMBLED UP DESCRIPTIONS

In this type of questions, a round-about description is given in the form of certain small relationships and direct relationship between the persons concerned is to be deciphered.

- Ex. 1. Pointing to a photograph, a man said, "I have no brother or sister but that man's father is my father's son." Whose photograph was it ?  
 (a) His own (b) His son's (c) His father's  
 (d) His nephew (e) None of these (Hotel Management, 1888)

Sol. Since the narrator has no brother, his father's son is he himself. So, the man who is talking is the father of the man in the photograph or the man in the photograph is his son.  
 Hence, the answer is (b).

- Ex. 2. Anil introduces Rohit as the son of the only brother of his father's wife. How is Rohit related to Anil ?  
 (a) Cousin (b) Son (c) Uncle (d) Son-in-law (e) Brother

Sol. The relations may be analysed as follows :  
 Father's wife — Mother; Mother's brother — Uncle; Uncle's son — Cousin.  
 So, Rohit is Anil's cousin. Hence, the answer is (a).

- Ex. 3. Pointing towards a person in a photograph, Anjali said, "He is the only son of the father of my sister's brother." How is that person related to Anjali ?  
(a) Mother (b) Father (c) Maternal uncle  
(d) Cousin (e) None of these (Bank P.O. 1994)
- Sol. The relations may be analysed as follows :  
Sister's brother — Brother; Brother's father — Father; Father's son — Brother.  
So, the person in the photograph is Anjali's brother.  
Hence, the answer is (b)
- Ex. 4. Pointing out to a photograph, a man tells his friend, "She is the daughter of the only son of my father's wife." How is the girl in the photograph related to the man ?  
(a) Daughter (b) Cousin (c) Mother (d) Sister (e) Niece
- Sol. The relations may be analysed as follows :  
Father's wife — Mother; Mother's only son — Himself.  
So, the girl is man's daughter.  
Hence, the answer is (a).
- Ex. 5. X introduces Y saying, "He is the husband of the grand daughter of the father of my father." How is Y related to X ?  
(a) Brother (b) Son (c) Brother-in-law (d) Nephew (e) Son-in-law
- Sol. The relations may be analysed as follows :  
Father's father — Grandfather, Grandfather's Grand daughter — Sister;  
Sister's husband — Brother-in-law.  
So, Y is X's brother-in-law.  
Hence, the answer is (c).
- Ex. 6. Pointing out to a lady, Rajan said, "She is the daughter of the woman who is the mother of the husband of my mother." Who is the lady to Rajan ?  
(a) Aunt (b) Grand daughter (c) Daughter (d) Sister (e) Sister-in-law
- Sol. The relations may be analysed as follows :  
Mother's husband — Father, Father's mother — Grandmother; Grandmother's daughter — Father's sister; Father's sister — Aunt.  
So, the lady is Rajan's aunt.  
Hence, the answer is (a).

#### EXERCISE 5A

- Pointing to a man on the stage, Rita said, "He is the brother of the daughter of the wife of my husband." How is the man on the stage related to Rita ?  
(a) Son (b) Husband (c) Cousin (d) Nephew (e) Brother-in-law
- Showing the man receiving the prize, Saroj said, "He is the brother of my uncle's daughter." Who is the man to Saroj ?  
(a) Son (b) Brother-in-law (c) Nephew (d) Uncle (e) Cousin
- Pointing to a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man ? (Bank P.O. 1998)  
(a) Mother (b) Daughter (c) Sister (d) Grandmother (e) None of these

4. Pointing to a photograph, a person tells his friend, "She is the grand daughter of the elder brother of my father/' How is the girl in the photograph related to his fhan ?  
11  
(a) Niece (6) Sister (c) Aunt (d) Sister-in-law (e) Maternal aunt
5. Pointing to a photograph, Vipul said, "She is the daughter of my grandfather's onfy son." How is Vipul related to the girl in the photograph ? (B.S.R.B. 1997)  
(a) Father (fc) Brother (c) Cousin (d) Data inadequate (e) None of these
6. A woman introduces a man as the son of the brother of her mother. How is the man. related to the woman ?  
(a)Kfaephew (6) Son (c) Cousin (d) Uncle (e) Grandson
7. Looking at a portrait of a man, Harsh said, "His mother is the wife of my father's son. Brothers and sisters I have none." At whose portrait was Harsh looking ?  
N (M.B.A 1998)  
(a) His son (6) His cousin (c) His uncle (d) His nephew (e) None of these
8. A man said to a lady, "Your mother's husband's sister is my aunt.? How is the lady related to the man ?  
(a) Daughter (6) Grand daughter (c) Mother (d) Sister (e) Aunt  
If Neena says, "Anita's father Raman is the only son of my father-in-law MahipaT, then how is Bindu, who is the sister of Anita, related to Mahipal ?  
(a) Niece (6) Daughter (c) Wife (d) Daughter-in-law (e) None of these  
(Bank P.O. 1996)
- It). Pointing to a girl in the photograph, Amar said, "Her mother's brother is the only son of my mother's father." How is the girl's mother related to Amar ?  
(a) Mother (6) Sister (c) Aunt id) Grandmother (e) None of these  
(Railways, 1994)
11. A girl introduced a boy as the son of the daughter of the father of her uncle. The hpy is girl's ,  
(a) Brother (b) Son (c) Uncle (d) Son-in-law (e) Nephew
12. If X is the brother of the son of Ys son, how is X related to Y ?  
(a) Son " (6) Brother (c) Cousin id) Grandson (e) Uncle
13. Pointing to a gentleman, Deepak said, "His only brother is the father of my daughter's father." How is the gentleman related to Deepak ?  
(a) Grandfather (6) Father (c) Brother-in-law (d) Uncle (e) None of these  
(Bank P.O. 1997)
14. Introducing a man to her husband, a woman said, "his brother's father is the only son of my grandfather." How is the woman related to his man ?  
(a) Mother (6) Aunt (c) Sister . (d) Daughter (e) Grandmother
15. Pointing out to a lady, a girl said, "She is the daughter-in-law of the grandmother of my father's only son." How is the lady related to the girl ?  
(a) Sister-in-law (6) Mother (c) Aunt (d) Mother-in-law (e) Cousin
16. Rita told Mani, "The girl I met yesterday at the beach was the youngest daughter of the brother-in-law of my friend's mother." How is the girl related to Rita's friend ?  
(a) Cousin (6) Daughter (c) Niece (d) Friend (e) Aunt

17. If Kamal says, "Ravi's mother is the only daughter of my mother how is Kamal related to Ravi ? (SJ1.IJP.O. 1994)  
 (a) Grandfather (6) Father (c) Brother  
 (d) Cannot be determined (e) None of these
18. Rahul told Anand, 'Yesterday I defeated the only brother of the daughter of my grandmother.' Whom did Rahul defeat ?  
 (a) Son (6) Father (c) Brother (rf) Father-in-law (e) Cousin
19. When Amy saw Manish, he recalled, "He is the son of the father of my daughter." Who is Manish ?  
 (a) Brother-in-law (b) Brother (c) Cousin (d) Uncle (e) Nephew
20. Pointing to a photograph, a lady tells Pramod, "I am the only daughter of this lady and her son is your maternal uncle." How is the speaker related to Pramod's father ? (Hotel Management, 1995)  
 (a) Sister-in-law (6) Wife (c) Either (a) or (b) (d) Neither (a) nor (6)
21. Introducing a man. a woman said, "He is the only son of my mother's mother." How is the woman related to the man ?  
 (a) Mother (6) Aunt (c) Sister (id) Niece (e) None of these
22. Pointing to a man in a photograph. Asha said. "His mothers only daughter is my mother." How is Asha related to that man ?  
 (a) Nephew (6) Sister (c) Wife (d) Niece (e) Grand daughter
23. Pointing to a photograph, a woman says, "This man's son's sister is my mother-in-law." How is the woman's husband related to the man in the photograph ?  
 (a) Grandson (6) Son (c) Son-in-law (id) Nephew (e) None of these (M.B.A. 1994)
24. Introducing a man, a woman said, "His wife is the only daughter of my father." How is that man related to the woman ?  
 (a) Brother (6) Father-in-law (c) Maternal uncle  
 (d) Husband (e) None of these
25. 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 (6) Brother (c) Cousin (id) Nephew (e) Brother-in-law
26. Pointing to the lady on the platform, Manju said, "She is the sister of the father of my mother's son." Who is the lady to Manju r  
 (a) Mother (b) Sister (c) Aunt (Id) Niece (e) None of these
27. Arun said, "This girl is the wife of the grandson of my mother." Who is Arun to the girl ?  
 (a) Father (6) Grandfather (c) Husband  
 (id) Father-in-law (c) None of these
28. Pointing to a man in a photograph, a woman said, "His brother's father is the only son of my grandfather." How is the woman related to the man in the photograph ? (B.S.R.B. 1996)  
 r . (a) Mother (6) Aunt (c) Sister (d) Daughter (e) Grandmother
29. Pointing to a person, a man said to a woman, "His mother is the only daughter of your father." How was the woman related to the person ?  
 (a) Aunt (6) Mother (c) Wife (d) Daughter (e) None of these

30. A man pointing to a photograph says, "The lady in the photograph is my nephew's maternal grandmother." How is the lady in the photograph related to the man's sister who has no other sister ? (Hotel Management, 1997)  
 (a) Cousin (b) Sister-in-law (c) Mother (d) Mother-in-law
31. 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 ?  
 (a) Mother's sister (b) Grandmother (c) Mother-in-law  
 (d) Sister of father-in-law (e) Maternal aunt
32. Pointing to an old man, Kailash said, "His son is my son's uncle." How is the old man related to Kailash ?  
 (a) Brother (b) Uncle (c) Father (d) Grandfather (e) None of these

### ANSWERS

1. (a): Wife of husband — Herself; Brother of daughter — Son.  
 So, the man is Rita's son.
2. (e): Brother of uncle's daughter — Uncle's son — Cousin.  
 ~ So, the man is Seema's cousin.
3. (a): Only daughter of my mother — Myself.  
 So, the woman is man's mother.
4. (a): Brother of father — Uncle; Uncle's grand daughter — daughter of uncle's son — daughter of cousin — niece.
5. (b): My grandfather's only son — My father.  
 So, the girl is the daughter of Vipul's father i.e., Vipul is the girl's brother.
6. (c): Brother of mother — Uncle; Uncle's son — Cousin.
7. (a): Since Harsh has no brother or sister, so he is his father's only son.  
 Now, wife of my father's son — my wife.  
 So, Harsh's wife is the man's mother or the man is Harsh's son.
8. (d): Your mother's husband — Your father; Your father's sister — Your aunt.  
 So, lady's aunt is man's aunt and therefore lady is man's sister.
9. (e): Only son of Neena's father-in-law Mahipal — Neena's husband.  
 So, Raman is Neena's husband and Anita and Bindu are his daughters.  
 Thus, Bindu is the grand daughter of Mahipal.
10. (c): Only son of Amar's mother's father — Amar's maternal uncle.  
 So, the girl's maternal uncle is Amar's maternal uncle. Thus, the girl's mother is Amar's aunt.
11. (a): Daughter of uncle's father — Uncle's sister — Mother; Mother's son — Brother
12. (d): Son of Y's Son — Grandson; Brother of Y's grandson — Y's grandson.
13. (d): Father of Deepak's daughter's father — Deepak's father.  
 So, the man's brother is Deepak's father or the man is the brother of Deepak's father  
 i.e., Deepak's uncle.
14. (c): Only son of her grandfather — Her father; man's brother's father — man's father.  
 So, man's father is her father i.e., She is the man's sister.
15. (b): My father's only son — My brother; Grandmother of my brother — My grandmother;  
 Daughter-in-law of my grandmother — My mother.  
 So, the lady is girl's mother.
16. (a): Daughter of brother-in-law — Niece; Mother's niece — Cousin.  
 So, the girl is the cousin of Rita's friend.

17. (e): Only daughter of Kamal's mother — Kamal's sister.  
So, Ravi's mother is Kamal's sister or Kamal is the brother of Ravi's mother *i.e.* Ravi's maternal uncle.
18. (ft): Daughter of grandmother — Aunt; Aunt's only brother — Father.
19. *ia*): Anuj's daughter's mother — Anuj's wife ; Anil's wife's father — Anuj's father-in-law;  
Father-in-law's son — Amy's brother-in-law.  
So, Manish is Amy's brother-in-law.
20. (6): Clearly, the speaker's brother is Pramod's maternal uncle. So, the speaker is Pramod's mother or his father's wife.
21. (d): My mother's mother — My grandmother; My grandmother's only son — My maternal uncle.  
So, the woman is man's niece.
22. *id*): Asha's mother's mother is man's mother *i.e.* Asha's mother is man's sister or Asha is man's niece.
23. (a) : Man's son's sister — Man's daughter.  
So, the man's daughter is the mother of the woman's husband. Thus, the woman's husband is the grandson of the man in the photograph.
24. *id*): Only daughter of my father — Myself. So, the man is woman's husband.
25. (6) : Father's wife — Mother; Mother's daughter — Sister; Sister's younger brother — My younger brother. So, the boy is Deepak's brother.
26. (c): Manju's mother's son — Manju's brother; Manju's brother's father — Manju's father; Father's sister — Manju's aunt.
27. *id*): Mother's grandson — Son; Son's wife — Daughter-in-law.
28. (c): Only son of woman's grandfather — Woman's father; Man's brother's father — Man's father. So, the woman is man's sister.
29. *ia*): Daughter of your father — Your sister.  
So, the person's mother is woman's sister or the woman is person's aunt.
30. *ic*): Clearly, the lady is the grandmother of man's sister's son *i.e.* the mother of the mother of man's sister's son *i.e.*, the mother of man's sister.  
So, the lady is man's mother.
31. *id*): Brother of my wife — My brother-in-law; Son of lady's brother is the brother-in-law of the man. So lady's brother is man's father-in-law *i.e.*, the lady is the sister of man's father-in-law.
32. (c) : Kailash's son's uncle — Kailash's brother. So, the old man's son is Kailash's brother *i.e.*, the old man is Kailash's father.

## TYPE 2 : RELATION PUZZLE

In this type, mutual blood relations or other informations of more than two persons are mentioned and information about any two is mentioned.

Ex. 1. A and B are brothers. C and D are sisters. A's son is D's brother. How is B related to C ? (M.B.A- 1998)

(a) Father (b) Brother (c) Grandfather (d) Uncle (e) None of these

Sol. Clearly, B is the brother of A; A's son is D's brother. This means D is the daughter of A. Since C and D are sisters, C is also the daughter of A.

So, B is the uncle of C.

Hence, the answer is (rf).

Ex. 2. Given that

1. A is the mother of B;
2. C is the son of A;

3. D is the brother of E;  
 4. E is the daughter of B.

The grandmother of D is

(S.C.ILA 1994)

- (a) A                      (b) B                      (c) C                      (d) D                      (e) E

Sol. D is the brother of E and E is the daughter of B. This means that D is the son of B.

Also, A is the mother of B.

So, A is the grandmother of D.

Hence, the answer is (a).

Ex. 4. A and B are married couple. X and Y are brothers. X is the brother of A. How is Y related to B ?

- (a) Brother-in-Law                      (b) Brother                      (c) Son-in-Law  
 (d) Cousin                      (e) None of these

Sol. A and B are husband and wife. Since X and Y are brothers, and X is the brother of A, Y is also the brother of A. Thus, Y is the brother-in-law of B. Hence, the answer is (a).

Ex. 5. Read the following information carefully and answer the questions given below :

There are six children playing football namely A, B, C, D, E and F. A and E are brothers. F is the sister of E. C is the only son of A's uncle. B and D are the daughters of the brother of C's father.

1. How is C related to F ?

- (a) Cousin                      (b) Brother                      (c) Son                      (d) Uncle                      (e) None of these

2. How many male players are there ?

- (a) One                      (b) Three                      (c) Five                      (d) Six                      (e) Four

3. How many female players are there ?

- (a) Two                      (b) Three                      (c) Five                      (d) One                      (e) Four

4. How is D related to A ?

- (a) Uncle                      (b) Sister                      (c) Niece                      (d) Cousin                      (e) None of these

Solution :

1. F is E's and hence A's sister. So, C is also the son of F's uncle and is, therefore, F's cousin. So, the answer is (a).
2. As given, A and E are brothers. Hence both are males. F is the sister of E and hence female. C is the son and hence male. B and D are daughters and hence female. Thus, there are three males. So, the answer is (b).
3. Clearly, from the solution of 2, we find that there are three females. So, the answer is (c).
4. Clearly, D's father is the brother of C's father and C's father is A's uncle. So, D's father is also A's uncle. Thus, D is A's cousin. Hence, the answer is (d).

### **EXERCISE 51~1**

1. A party consists of grandmother, father, mother, four sons and their wives and one son and two daughters to each of the sons. How many females are there in all ?  
 (a) 14                      (b) 16                      (c) 18                      (d) 24                      (e) None of these

2. Lakshmi and Meena are Rohan's wives. Shalini is Meena's step-daughter. How is Lakshmi related to Shalini ?  
 (a) Sister (b) Mother-in-Law (c) Mother  
 (d) Step-mother (e) None of these
3. Baya has a brother Anil. Daya is the son of Chandra. Bimal is Chandra's father. In terms of relationship, what is Anil of Bimal ? (C.B.I. 1984)  
 (a) Son (b) Grandson (c) Brother (d) Grandfather
4. Rahul's mother is the only daughter of Monika's father. How is Monika's husband related to Rahul ? (Bank P.O. 1994)  
 (a) Uncle (b) Father (c) Grandfather  
 (d) Brother (e) Data inadequate
5. If (i) M is brother of N; (ii) B is brother of N; and (iii) M is brother of D, then which of the following statements is definitely true ? (B.S.R.B. 1995)  
 (a) N is brother of B (b) N is brother of D (c) M is brother of B  
 (d) D is brother of M (e) None of these
6. Deepak is brother of Ravi. Rekha is sister of Atul. Ravi is son of Rekha. How is Deepak related to Rekha ? (C.B.I. 1997)  
 (a) Son (b) Brother (c) Nephew (d) Father
7. A is B's sister. C is B's mother. D is C's father. E is D's mother. Then, how is A related to D ? (Assistant Grade, 1996)  
 (a) Grandmother (b) Grandfather (c) Daughter (d) Grand daughter
8. Given that : 1. A is brother of B.  
 2. C is father of A.  
 3. D is brother of E.  
 4. E is daughter of B.  
 Then, uncle of D is (S.C.J.L.A. 1993)  
 (a) A (b) B (c) C (d) E
9. Q is the brother of R; P is the sister of Q; T is the brother of S; S is the daughter of R. Who are the cousins of Q ?  
 (a) R and P (b) P and T (c) Q and T  
 (d) S and T (e) None of these
10. E is the son of A. D is the son of B. E is married to C. C is B's daughter. How is D related to E ?  
 (a) Brother (b) Uncle (c) Father-in-Law  
 (d) Brother-in-Law (e) None of these
11. 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 related to E ? (Assistant Grade, 1997)  
 (a) Daughter (b) Brother-in-Law (c) Husband (d) Sister-in-Law
12. Q's mother is sister of P and daughter of M. S is daughter of P and sister of T. How is M related to T ? (Bank P.O. 1995)  
 (a) Grandmother (b) Father (c) Grandfather  
 (d) Grandfather or Grandmother (e) None of these



**Directions (Questions 13 to 15) : Read the following information and answer the questions given below :**

A is the son of B. C, B's sister has a son D and a daughter E. F is the maternal uncle of D.

13. How is A related to D ?  
 (a) Cousin (b) Nephew (c) Uncle **(d) Brother**
14. How is E related to F ?  
 (a) Sister **(b) Daughter** (c) Niece **(d) Wife**
15. How many nephews does F have ?  
 (a) Nil (b) One (c) Two **(d) Three**

**Directions (Questions 16\*17): Read the following information and answer the questions given below it :** (S.8.C. 1993)

A is the father of C. But C is not his son.

E is the daughter of C. F is the spouse of A.

B is the brother of C. D is the son of B.

G is the spouse of B. H is the father of G.

16. Who is the grandmother of D ?  
 (a) A **(b) C** (c) F **(d) H**
17. Who is the son of F ?  
 (a) B (b) C (c) D **(d) E**
18. C is A's father's nephew. D is A's cousin but not the brother of C. How is D related to C ?  
**(a) Father (b) Sister (c) Mother (d) Aunt**
19. P is the son of Q while Q and R are the sisters to one another. T is the mother of R. If S is the son of T, which of the following statements is correct ?  
 (a) T is the brother of Q. (b) S is the cousin of P.  
 (c) Q and S are sisters. (d) S is the maternal uncle of P.  
 (e) R is the grandfather of P.
20. A is the brother of B. B is the brother of C. D is the father of A. Based on these three statements, which of the following statements cannot be definitely true ?  
 (a) B is the brother of A. **(b) B is the son of D.**  
**(c) A is the brother of C.** **(d) C is the brother of A.**  
 (e) A, B and C are D's children. (B.S.R.B. 1997)
21. A is father of X ; B is mother of Y. The sister of X and Z is Y. Which of the following statements is definitely not true ?  
**(a) B is the mother of Z.** (b) X is the sister of Z. (c) Y is the son of AC •  
 (d) B has one daughter. (e) B is the wife of A.
22. Rajan is the brother of Sachin and Manick is the father of Rajan. Jagat is the brother of Priya and Priya is the daughter of Sachin. Who is the uncle of Jagat ?  
 (a) Rajan **(b) Sachin** (c) Manick **(d) None of these**  
 (Transmission Executives' 1994)
23. Neelam, who is Deepak's daughter, says to Deepika, "Your mother Rekha is the younger sister of my father who is the third child of Ramlal." How is Ramlal related to Deepika ?  
**(a) Uncle (b) Father (c) Grandfather (d) Father-in-Law**

24. P is the brother of Q and R. S is R's mother. T is P's father. Which of the following statements cannot be definitely true ?  
 (a) T is Q's father. (b) S is P's mother. (c) P is S's son.  
 (d) T is S's husband. (e) Q is T's son.
25. P is the brother of D. X is the sister of P. A is the brother of F. F is the daughter of D. M is the father of X. Who is the uncle of A ?  
 (a) X (b) P (c) F (d) M
26. K is the brother of N and X. Y is the mother of N and Z is the father of K. Which of the following statements is not definitely true ?  
 (a) K is the son of Z. (b) Y is the wife of Z. (c) K is the son of Y.  
 (d) K is the father of X. (e) N is the brother of X.
27. A woman walking with a boy meets another woman and on being asked about her relationship with the boy, she says, "My maternal uncle and his maternal uncle's maternal uncle are brothers." How is the boy related to the woman ?  
 (a) Nephew (b) Brother-in-Law (c) Son (d) Grandson (e) Husband

Directions (**Questions 28 to 31**) : **Read the information given below and answer the questions that follow :** (B.S.R.B. 1998)

- (/) In a family of six persons A, B, C, D, E and F, there are two married couples.  
 (ii) D is grandmother of A and mother of B.  
 (iii) C is wife of B and mother of F.  
 (iv) F is the grand daughter of E.
28. What is C to A ?  
 (a) Daughter (b) Grandmother (c) Mother  
 (d) Cannot be determined (e) None of these
29. How many male members are there in the family ?  
 (a) Two (b) Three (c) Four  
 (d) Cannot be determined (e) None of these
30. Which of the following is true ?  
 (a) A is brother of F, (b) A is sister of F. (c) D has two grandsons,  
 (d) B has two daughters. (e) None of these.
31. Who among the following is one of the couples ?  
 (a) CD (b) DE (c) EB  
 (d) Cannot be determined (e) None of these

Directions (**Questions 32 to 37**): **Study the following information carefully and answer the questions given below it :**

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.

32. How many male members are there in the family ?  
 (a) 1 (b) 2 (c) 3 (d) 4
33. Who is the mother of B ?  
 (a) D (b) F (c) E (d) A
34. How many children does A have ?  
 (a) One (b) Two (c) Three (d) Four

35. Who is the wife of E ?  
 (a) A (6) F (c) B **id)** Can't be determined
36. Which of the following is a pair of females ?  
**ia)** AE **ib)** BD (c) DF **id)** AD
37. How is E related to D ?  
**ia)** Father (6) Brother (c) Uncle **id)** Can't be determined

Directions (**Questions 38 to 42**) : **Read the information given below and answer the questions that follow :** (Bank P.O. 1995)

- I. A, B, C, D, E and F are six members of a family.  
 II. One couple has parents and their children in the family.  
 III. A is the son of C and E is the daughter of A.  
 IV. D is the daughter of F who is the mother of E.

38. Who are the male members in the family ?  
**ia)** A and C (6) C and F (c) A, B and D  
**id)** Cannot be determined (e) None of these
39. Which of the following pairs is the parents of the children ?  
**ia)** BC (6) CF (c) BF  
 (d) Cannot be determined **ie)** None of these
40. Which of the following pairs is the parents of the couple ?  
**ia)** AB (6) BC **ic)** AF **id)** CF (e) None of these
41. How many female members are there in the family ?  
**ia)** Two **ib)** Three **ic)** Four  
**id)** Can't be determined **ie)** None of these
42. What relationship do D and E bear to each other ?  
**ia)** Sister and Brother **ib)** Mother and Son  
**ic)** Grandmother and Grand daughter **id)** Sister (e) None of these
43. A, B, C, D, E, F and G are members of a family consisting of four adults and three children, two of whom, F and G are girls. A and D are brothers and A is a doctor. E is an engineer married to one of the brothers and has two children. B is married to D and G is their child. Who is C ? (IJV.S. 1998)  
**ia)** A's son (6) E's daughter **ic)** F's father **id)** G's brother

Directions (**Questions 44 to 48**) : **Read the following information carefully and answer the questions given below it :**

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.

44. How is F related to A ?  
 (a) Mother (6) Sister-in-Law (c) Sister  
 (d) Mother-in-Law (e) None of these
45. How is E related to C ?  
 (a) Sister (6) Daughter (c) Cousin (d) Aunt **(e)** Mother
46. Who is C to B ?  
 (a) Brother (6) Brother-in-Law, (c) Nephew  
 (d) Son-in-Law (e) None of these

47. How many male members are there in the family ?  
**ia)** One                      **ib)** Two              (c) Three              **id)** Four              (e) Five
48. How is F related to C ?  
**(a)** Mother-in-Law    (6) Sister-in-Law    (c) Mother    (rf) Aunt    **ie)** Sister
49. Shobha is the niece of Ashish. Ashish's mother is Priya. Kamla is Priya's mother. Kamla's husband is Hari. Krishna is the mother-in-law of Hari. How is Shobha related to Hari ?  
(Assistant Grade, 1996)  
**ia)** Daughter              (6) Great granddaughter              (c) Grandniece  
id) Great grandson's daughter

Directions (Questions 50 to 54): Study the following information carefully and answer the questions given below it : (Railways, 1998)

There are six persons A, B, C, D, E and F. C is the sister of F. B is the brother of E's husband. D is the father of A and grandfather of F. There are two fathers, three brothers and a mother in the group.

60. Who is the mother ?  
**ia)** A    **ib)** B                      **ic)** D                      **id)** E
51. Who is E's husband ?  
**ia)** B                      **ib)** C                      **ic)** A                      **id)** F
52. How many male members are there in the group ?  
**ia)** One                      **ib)** Two                      **ic)** Three                      **id)** Four
53. How is F related to E ?  
**(a)** Uncle                      **ib)** Husband                      **ic)** Son                      **id)** Daughter
54. Which of the following is a group of brothers ?  
**ia)** ABF                      (6) ABD                      **ic)** BFC                      **id)** BDF

Directions iQuestions 55 to 60) : Read the following information carefully and answer the questions given below it :

A family consists of six members P, Q, R, X, Y and Z. Q is the son of R but R is not mother of Q. P and R are a married couple. Y is the brother of R. X is the daughter of P. Z is the brother of P.

55. Who is the brother-in-law of R ?  
(a) P                      **ib)** Z                      (c) Y                      **(d)X**
56. Who is the father of Q ?  
**ia)** R                      **ib)** P                      **ic)** Z                      **id)** None of these
57. How many children does P have ?  
**ia)** One                      (6) Two                      (c) Three                      **id)** Four
58. How many female members are there in the family ?  
**ia)** One                      **ib)** Two                      **ic)** Three                      **id)** Four
59. How is Q related to X ?  
**ia)** Husband                      (6) Father                      (c) Brother                      **(d)** Uncle
60. Which is a pair of brothers ?  
**ia)** P and X                      **ib)** P and Z                      **ic)** Q and X                      **id)** R and Y

Directions (Questions 61 to 65) : Study the information given below and answer the questions that follow :

There is a family of six persons A, B, C, D, E and F. They are Lawyer, Doctor, Teacher, Salesman, Engineer and Accountant. There are two married couples in the

family. D, the Salesman is married to the Lady Teacher. The Doctor is married to the Lawyer. F, the Accountant is the son of B and brother of E. C, the Lawyer is the daughter-in-law of A. E is the unmarried Engineer. A is the grandmother of F.

61. How is E related to F ?

- |                          |                   |            |
|--------------------------|-------------------|------------|
| (a) Brother              | ib) Sister        | (c) Cousin |
| (d) Cannot be determined | (e) None of these |            |

62. What is the profession of B ?

- |                          |                   |            |
|--------------------------|-------------------|------------|
| (a) Teacher              | (6) Doctor        | (c) Lawyer |
| id) Cannot be determined | ie) None of these |            |

63. What is the profession of A ?

- |                           |                   |            |
|---------------------------|-------------------|------------|
| ia) Lawyer                | (6) Teacher       | (c) Doctor |
| (rf) Cannot be determined | ie) None of these |            |

64. Which of the following is one of the couples ?

- |             |                   |             |
|-------------|-------------------|-------------|
| (a) F and D | ib) D and B       | ic) E and A |
| (d) A and C | (e) None of these |             |

65. How is D related to F ?

- |                 |                   |           |
|-----------------|-------------------|-----------|
| ia) Grandfather | ib) Father        | (c) Uncle |
| (rf) Brother    | ie) None of these |           |

Directions (**Questions 66 to 70**) : **Read the following information carefully and answer the questions below :**

A family consists of six members P, Q, R, S, T and U. There are two married couples. Q is a doctor and the father of T. U is grandfather of R and is a contractor. S is grandmother of T and is a housewife. There is one doctor, one contractor, one nurse, one housewife and two student\* in the family.

66. Who is the husband of P ?

- |       |       |       |       |       |
|-------|-------|-------|-------|-------|
| ia) R | ib) U | ic) Q | id) S | (e) T |
|-------|-------|-------|-------|-------|

67. Who is the sister of T ?

- |                              |                   |       |
|------------------------------|-------------------|-------|
| ia) R                        | (6) U             | (c) T |
| id) Information insufficient | ie) None of these |       |

68. What is the profession of P ?

- |               |                   |                     |
|---------------|-------------------|---------------------|
| (a) Doctor    | (6) Nurse         | (c) Doctor or Nurse |
| (d) Housewife | (e) None of these |                     |

69. Which of the following are two married couples ?

- |            |            |            |            |                   |
|------------|------------|------------|------------|-------------------|
| ia) US, QT | ib) US, QP | (c) TS, RU | (d) US, RP | ie) None of these |
|------------|------------|------------|------------|-------------------|

70. Which of the following is definitely a group of male members ?

- |        |         |         |        |                   |
|--------|---------|---------|--------|-------------------|
| ia) QU | ib) QUT | (c) QUP | (d) UT | (e) None of these |
|--------|---------|---------|--------|-------------------|

Directions (**Questions 71 to 73**): **Read the following information carefully and answer the questions that follow :** (S.B.I.P.O.1995)

In a village of Bastar district in Madhya Pradesh, only two types of people live who belong to a tribal class. The first type is known as class A, while the other is known as class B. In that village, there is no other type of person except these two. The activities of both types of people are governed by perfectly patterned norms of social behaviour. Each person of the tribe has to obey the norms. They are rigid about this.



8. (a) : Clearly, D is the brother of E and E is the daughter of B. So, D is the son of B. Also, A is the brother of B. So, A is the uncle of D.
9. (d): T is the brother of S, who is the daughter of R. So, T and S are the children of R. Now, Q is the brother of R. So, T and S are the cousins of Q.
10. (d): C is B's daughter and D is B's son. So, D is the brother of C. E is a male married to C. So, E is the husband of C, whose brother is D. So, D is the brother-in-law of E.
11. ia): A is father of C and C is sister of D. So, A is father of D. But D is son of B. So, B is the mother of D and wife of A. Also, E is the brother of A. So, B is the sister-in-law of E.
12. (a): S is daughter of P and sister of T. So, T is daughter of P. Now, the sister of P is the daughter of M. This means that P is also the daughter of M. Clearly, T is the granddaughter of M. So, M is the Grandfather or Grandmother of T.
13. ia) : A is the son of B and D is the son of the sister of B. So, A is the cousin of D.
14. (c): E is the daughter of C and D is the son of C. So, F, who is the maternal uncle of D, is also the maternal uncle of E. Thus, E is the niece of F.
15. (c): Clearly, F is the maternal uncle of D means F is the brother of D's mother i.e., F is the brother of C. C is the sister of B. So, F is the brother of B who is A's mother. Thus, F is the maternal uncle of A. So, A and D are the nephews of F i.e., F has two nephews.
16. (c): D is the son of B, B is the brother of C and A is the father of C. This means that B is the father of D and A is the father of B. So, A is the grandfather of D. Now, F is the spouse of A. So, F is the grandmother of D.
17. (o): As explained above, B is the son of A and F is the spouse of A. So, B is the son of F.
18. ib): C is A's father's nephew means C is the son of A's father's brother i.e., C is the cousin of A. D is also A's cousin. So, D must be real brother or sister of C. But D is not brother of C. So, D must be sister of C.
19. (d) : Q and R are sisters. So, T is the mother of R means T is the mother of Q and R. S is the son of T means S is the brother of Q. Thus, P is the son of Q means S is the maternal uncle of P.
20. (d) : A is the brother of B and B is the brother of C. So, C may be the brother or sister of A.
21. (c): A is the father of X and Y is the sister of X. So, Y is the daughter of A.
22. (a): Jagat is the brother of Priya and Priya is the daughter of Sachin. So, Jagat is the son of Sachin. Now, Rajan is the brother of Sachin. Thus, Rajan is the uncle of Jagat.
23. ic): Neelam's father is Deepak. Deepika's mother is Rekha. Deepak is the third child of Ramlal. So, Deepak's younger sister Rekha is the daughter of Ramlal. So, Ramlal is father of Rekha and grandfather of her daughter Deepika.
24. ie): P, Q, R are children of same parents. So, S who is R's mother and T, who is F's father, will be mother and father of all three. However, it is not mentioned whether Q is male or female. So, ie) cannot be definitely true.
25. ib) : A is the brother of F who is the daughter of D. So, A is the son of D. P is the brother of D. So, P is the uncle of A.
26. ie): K is the brother of N and X. So, Y, who is the mother of N and Z, who is the father of K, will be mother and father of all three. However, it is not mentioned whether N is male or female. So, the statement (\*) cannot be definitely true.
27. ic): Boy's maternal uncle will be brother of boy's mother. Maternal uncle of mother's brother and maternal uncle of lady are brother means lady is sister of mother's brother i.e., lady is the mother of the boy. So, the boy is woman's son.
28. ic): C is the wife of B and D is mother of B. So, C is the grandmother of A. So, C is the mother of A.

29. (d): Clearly, the sex of A cannot be determined.
30. *ie*): The sex of A is not known. So, neither (a) nor (6) is definitely true. Clearly, D is the grandmother of A and F.
31. (6) : C is wife of B. So, one couple is BC. Now, D is grandmother of A. B is the son of D and his wife C is the mother of F. So, D is also the grandmother of F. But F is the granddaughter of E. So, E is the grandfather of F and the husband of D. Thus, DE is another couple.

## Questions 32 to 37

- B is the *son* of C but C is not the mother of B means C is the father of B. A is married to C means A is the mother of B. F is brother of B means F is son of A and C. D is daughter of A means D is daughter of A and C.
32. *id*): A is the mother and hence female. B is the son and hence male. C is the husband and hence male. D is the daughter and hence female. E is the brother and hence male. F is the son and hence male. So, there are four males.
33. (f) r Clearly, A is the mother of B.
34. (c): A has son B, son F and daughter D i.e. three children.
35. (c/): Clearly, from the data available, the wife of E cannot be determined.
36. (d) : Clearly, the females are only the mother A and the daughter D.
37. (c): E is the brother of C who is the father of D. So, E is the uncle of D.

## Questions 38 to 42

- E is the daughter of A and F is the mother of E. So, A is the father of E and hence the husband of F. Now, D is the daughter of F. So, D and E are the daughters of A and F.
- Also, A is the son of C. Now, only B remains. Thus, B and C are the parents of A.
38. *id*): The sex of B and C cannot be determined.
39. *ie*): Clearly, A and F are the parents of the children D and E.
40. (6): Clearly, B and C are the parents of the couple.
41. *ic*): Clearly, the females in the family are : either B or C, F, D and E.
42. (d): Clearly, D and E are sisters.
43. *ia*): E is married to A or D. But B is married to D. Thus, E is married to A. Thus, A, B, D, E are the four adults and C, F, G are the three children in the family. B and D have a child O. A and E have two children. They are C and F. Now, only F and G are girls. So, C is a boy. Thus, C is A's or E's son.

## Questions 44 to 48

- A is a male and married to B. So, A is the husband and B is the wife. C is the brother of A. D is the son of C. E, who is the sister of D will be the daughter of C. B is the daughter-in-law of F whose husband has died means F is the mother of A.
44. (a): Clearly, F is the mother of A.
45. (6): Clearly, E is the daughter of C.
46. *ib*) : C is the brother of A who is the husband of B. So, C is the brother-in-law of B.
47. (c) : A is a male. B, the wife, is female. C, the brother, is male. D, the son, is male. E, the sister, is female. F, the mother, is a female. So, there are three males.
48. *ic*): F is the mother of A and C is the brother of A. So, F is the mother of C.
49. (6) : Shobha is the niece of Ashish means Ashish is the uncle of Shobha. Now, Priya is Ashish's mother. So, Priya is the grandmother of Shobha. Hari is Priya's father. So, Shobha is the great granddaughter of Hari.



## Questions 50 to 54

D is father of A and grandfather of P. So, A is father of F. Thus, D and A are the two fathers. C is the sister of F. So, C is the daughter of A. Since there is only one mother, it is evident that E is the wife of A and hence the mother of C and F. So, B is brother of A. There are three brothers. So, F is the brother of C.

50. *id*): Clearly, E is the mother.

61. (c): Clearly, A is E's husband

52. *d*): A, the father, is male. B, the brother, is male. C, the sister, is female. D, the grandfather, is male. E, the mother, is female. F, the brother, is male. So, there are four males.

53. (c): Clearly, F is the son of A.

54. (o): Clearly, B and A are brothers. F is the brother of C. So, three brothers are A, B, F.

## Questions 55 to 66

Q is the son of R but R is not the mother. So, R is the father of Q. P is married to R. So, P is the wife of R and the mother of Q. X is the daughter of P and hence of R and so she is the sister of Q. Y is the brother of R and Z is the brother of P.

55. (6): R is the husband of P and Z is the brother of P. So, Z is the brother-in-law of R

56. (a): R is the father of Q

57. (6): Clearly, Q is the son of P and X is the daughter of P. So, P has two children.

58. (6): There are two females only — mother P and daughter X.

59. (c): X is the sister of Q who is a male. So, Q is brother of X.

60. (c): Clearly, Y is brother of R who is a male. So, Y and R are a pair of brothers.

## Questions 61 to 65

C is the daughter-in-law of A who is the grandmother of P means C is the mother of F. But F is the son of B. So, B is C's husband. But C, the lawyer, is married to the Doctor. So, B is the Doctor. F, the Accountant, will be the son of B and C. E is the unmarried Engineer. So, the other married couple can be that of grandmother of F *i.e.* A and D. But D, the Salesman, is married to the Lady Teacher. So, D, the Salesman, is the grandfather of F, father of B and the husband of A, the Lady Teacher.

61. *d*): Clearly, from the given data, the relation between E and F cannot be determined.

61. *b*): Clearly, B is the Doctor.

63. (b): A is the Lady Teacher,

64. (t): The two couples are C and B; and D and A which is none among the choices.

65. (a): D is the grandfather of F.

## Questions 66 to 70

Q, the Doctor, is the father of T. S, the Housewife, is the grandmother of T and hence the mother of Q. Since there are only two married couples one being that of Q, the grandfather of R *i.e.* U must be married to S. Thus, R and T will be both children of Q and these must be the students. So, P, who remains, shall be the wife of Q and she alone can be the nurse. Thus, U must be the contractor.

66. (c): The husband of P will be Q

67. (o): Clearly, R and T are children of same parents. So, R will be the sister of T.

68. (6): P is the nurse.

69. (6): The two married couples are Q, P and U, S.

70. (a): Clearly, for definite the males are Q, the father and U, the grandfather

71. (6): The mother of class B female belongs to class B. So, her father was born in class A. Thus, her father's mother belonged to class A, and father's father was born in class B. So, the Grandfather belongs to class B and Grandmother belongs to class A.

72. (c): The boy born in class B will marry a girl of class A. So. the daughter will belong to class A. Thus, (a) is false.  
 Since the boy's daughter will belong to class A, she would marry a boy of class B and so the son-in-law would be from class B. So, (6) is false.  
 The boy, born in class B. will have mother born in class B and father born in class A. So, his uncle (i.e. mothers brother or father's brother) can be from class A or B. So, (c) is true.
73. (a): A girl of class B will have mother born in class B and so the mother's brother will also belong to class B. Since people of any class cannot marry the members of their own class, so the condition in (a) is not permissible.

### TYPE 3 : CODED RELATIONS

In such questions, the relationships are represented by certain codes or symbols such as +, x, -, r, • etc. Then relationships between certain persons, given in the form of these codes, are to be analysed.

Ex. 1. If  $A + B$  means *A is the sister of B*,  $A - B$  means *A is the brother of B*,  $A \times B$  means *A is the daughter of B*, which of the following shows the relation that *E is the maternal uncle of D*?

- (a)  $D + F \times E$  (6)  $D - F \times E$  (c)  $D \times F + E$   
 (d)  $D \times F - E$  (e) None of these.

Sol. Clearly, *E is the maternal uncle of D* means *D is the daughter of the sister (say F) of E i.e.  $D \times F + E$ .*  
 Hence, the answer is (c).

Ex. 2. **Read the following information carefully and answer the questions that follow :**

$A 4 B$  means *A is the son of B*;  $A - B$  means *A is the wife of B*;  $A \times B$  means *A is the brother of B*;  $A + B$  means *A is the mother of B* and  $A = B$  means *A is the sister of B*.

- What does  $P + R - Q$  mean ?  
 (a) Q is the father of P. (ft) Q is the son of P.  
 (c) Q is the uncle of P. (d) Q is the brother of P.
- What does  $P \times R + Q$  mean ?  
 (a) P is the brother of R. (h) P is the father of Q  
 (c) P is the uncle of Q. (d) P is the nephew of Q.
- What does  $P = R + Q$  mean ?  
 (a) P is the aunt of Q. (ft) P is the daughter of Q.  
 10 (c) P is the niece of Q. (d) P is the sister of Q.
- What does  $P = R + Q$  mean ?  
 (a) P is the aunt of Q. (ft) P is the sister of Q.  
 (c) Q is the niece of P. (rf) Q is the daughter of P.

Solution :

- Clearly,  $P + R - Q$  means *P is the son of R who is the wife of Q i.e. Q is the father of P.*  
 Hence, the answer is (a).
- $P \times R + Q$  means *P is the brother of R who is the mother of Q i.e. P is the uncle of Q.*  
 So, the answer is (c).

3.  $P = R + Q$  means  $P$  is the sister of  $R$  who is the son of  $Q$ . Le.  $P$  is the daughter of  $Q$ .  
So, the answer is (6).
4.  $P = R + Q$  means  $P$  is the sister of  $R$  who is the mother of  $Q$  i.e.  $P$  is the aunt of  $Q$ .  
So, the answer is *ia*).

### EXERCISE 5C ]

1.  $P + Q$  means  $P$  is the brother of  $Q$ ;  $P - Q$  means  $P$  is the mother of  $Q$  and  $P \times Q$  means  $P$  is the sister of  $Q$ . Which of the following means  $M$  is the maternal uncle of  $R$  ?  
(a)  $M + K + R$  (6)  $M - R + K$  (c)  $M + K - R$   
*id*)  $M + K \times R$  (e) None of these
2. If  $A + B$  means  $A$  is the brother of  $B$ ;  $A + B$  means  $A$  is the father of  $B$  and  $A \times B$  means  $A$  is the sister of  $B$ , which of the following means  $M$  is the uncle of  $P$  ? (8.B.IJP.O. 1997)  
(a)  $N \times P + M$  (b)  $M + S + R \cdot P$  (c)  $M \cdot N \times P$   
(d)  $M + K + T \times P$  (e) None of these.

Directions I Questions 3 to 5): Read the following information and answer the questions given below it :

$A + B$  means  $A$  is the daughter of  $B$ ;  $A \times B$  means  $A$  is the son of  $B$  and  $A - B$  means  $A$  is the wife of  $B$ .

3. If  $P \times Q - S$ , which of the following is true ?  
*ia*)  $S$  is wife of  $Q$  (b)  $S$  is father of  $P$  (c)  $P$  is daughter of  $Q$   
*id*)  $Q$  is father of  $P$  (e) None of these
4. If  $T - S \times B - M$ , which of the following is not true ?  
(a)  $B$  is mother of  $S$  (b)  $M$  is husband of  $B$  *ic*)  $T$  is wife of  $S$   
(d)  $S$  is daughter of  $B$  (e)  $S$  is son of  $B$
5. If  $Z \times T - S \times U + P$ , what is  $U$  to  $Z$ .  
*ia*) Mother (b) Grandmother *ic*) Father  
(d) Can't be determined (e) None of these.
6.  $P \times Q$  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)  $T \times M + S$  (6)  $S + T \times M$  (c)  $S \times M + T$   
(d)  $S \times M - R - T$  (e) None of these (B.S.R.B. 1997)
7. If  $A + B$  means  $A$  is the son of  $B$ ;  $A - B$  means  $A$  is the husband of  $B$ ;  $A \times B$  means  $A$  is the sister of  $B$ , then which of the following shows the relation  $Q$  is the maternal uncle of  $P$  ?  
(a)  $P + B - R \times Q$  (6)  $P - B + R \times Q$  (c)  $P + B \times R - Q$   
(rf)  $P \times B - R + Q$  (e) None of these
8. If  $A * B$  means  $A$  is the mother of  $B$ ;  $A + B$  means  $A$  is the brother of  $B$ ;  $A \times B$  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)  $D \sim C$  (b)  $D \times P - C$  (c)  $C - P * D$  (rf)  $P + D + C$  (e)  $D - P - R C$
9. If  $X o Y$  means  $X$  is the wife of  $Y$ ;  $X \cdot Y$  means  $X$  is the son of  $Y$  and  $X \cdot Y$  means  $X$  is the sister of  $Y$ , which of the following would mean that  $A$  is the daughter of  $B$  ?

- (a)  $A * C \cdot D \circ B$  (6)  $A \circ C \cdot D \cdot B$  (c)  $A \circ C \circ D \cdot B$   
 (d)  $A \cdot C * D \circ B$  (e) None of these

Directions (**Questions 10 to 12**) : **Study the information given below and answer the questions that follow :**

$A + B$  means  $A$  is the daughter of  $B$  \  $A - B$  means  $A$  is the husband of  $B$ ;  $A \times B$  means  $A$  is the brother of  $B$ .

10. If  $P + Q - R$ , which of the following is true ?  
 (a)  $R$  is the mother of  $P$  (b)  $R$  is the sister-in-law of  $P$   
 (c)  $R$  is the aunt of  $P$  (d)  $R$  is the mother-in-law of  $P$
11. If  $P \times Q + R$ , which of the following is true ?  
 (a)  $P$  is the brother of  $R$  (b)  $P$  is the uncle of  $R$   
 (c)  $P$  is the son of  $R$  (d)  $P$  is the father of  $R$
12. If  $P + Q \times R$ , which of the following is true ?  
 (a)  $P$  is the niece of  $R$  (b)  $P$  is the daughter of  $R$   
 (c)  $P$  is the cousin of  $R$  (d)  $P$  is the daughter-in-law of  $R$
13. If (A)  $P + Q$  means  $P$  is the brother of  $Q$ ,  
 (B)  $P \times Q$  means  $P$  is the father of  $Q$ ,  
 (C)  $P - Q$  means  $P$  is the sister of  $Q$ ,  
 which of the following represents  $S$  is the niece of  $T$  ?  
 (a)  $T \times M + S - K$  (f c)  $K - S \times M \text{ r } T$  (c)  $T + M \times S - K$   
 (d)  $T \times S + M - K$  (e) None of these (Bank P.O. 1995)
14. To find out the answer to the above question, which of the statements can be dispensed with ?  
 (a) A only (6) B only (c) C only (d) B or C only (e) All are necessary
15. If  $P + Q$  means  $P$  is the husband of  $Q$  \  $P + Q$  means  $P$  is the sister of  $Q$  and  $P \times Q$  means  $P$  is the son of  $Q$ , which of the following shows  $A$  is the daughter of  $B$  ?  
 (Bank P.O. 1996)  
 (o)  $C \times B + A$  (6)  $B + C \times A$  (c)  $D \times B + C + A$   
 (d)  $A + D \times B$  (e) None of these
16.  $X - Z$  means  $X$  is the mother of  $Z$ ;  $X \times Z$  means  $X$  is the father of  $Z$  and  $X + Z$  means  $X$  is the daughter of  $Z$ . Now, if  $M - N \times T + Q$ , then which of the following is not true ?  
 (B.8.R.B. 1998)  
 (a)  $T$  is  $N$ 's daughter (6)  $N$  is wife of  $Q$  (c)  $M$  is mother-in-law of  $Q$   
 (d)  $Q$  is wife of  $N$  (e)  $T$  is granddaughter of  $M$

Directions (**Questions 17 to 24**) : **Read the following information carefully and answer the questions given below it :**

$A + B$  means  $A$  is the father of  $B$  \  $A - B$  means  $A$  is the wife of  $B$  \  $A \times B$  means  $A$  is the brother of  $B$  \  $A + B$  means  $A$  is the daughter of  $B$ .

17. If  $P + R + S + Q$ . which of the following is true ?  
 (o)  $P$  is the daughter of  $Q$  (6)  $Q$  is the aunt of  $P$   
 (c)  $P$  is the aunt of  $Q$  (d)  $P$  is the mother of  $Q$
18. If  $P - R + Q$ . which of the following statements is true ?  
 (a)  $P$  is the mother of  $Q$  (6)  $Q$  is the daughter of  $P$   
 (c)  $P$  is the aunt of  $Q$  (d)  $P$  is the sister of  $Q$

19. If  $P \times R + Q$ , which of the following statements is true ?  
 (a) P is the uncle of Q (b) P is the father of Q  
 (c) P is the brother of Q (d) P is the son of Q
20. If  $P \times R - Q$ , which of the following is true ?  
 (a) P is the brother-in-law of Q (b) P is the brother of Q  
 (c) P is the uncle of Q (d) P is the father of Q
21. If  $P + R + Q$ , which of the following is true ?  
 (a) P is the brother of Q (b) P is the son of Q  
 (c) P is the husband of Q (d) P is the father of Q
22. If  $P + R + Q$ , which of the following is true ?  
 (a) P is the father of Q (b) P is the brother of Q  
 (c) P is the mother of Q (d) P is the sister of Q
23. If  $P \times R + Q$ , which of the following is true ?  
 (a) P is the uncle of Q (b) P is the father of Q  
 (c) P is the brother-in-law of Q (d) P is the grandfather of Q
24. If  $P - R \times Q$ , which of the following is true ?  
 (a) P is the sister of Q (b) Q is the husband of P  
 (c) P is the sister-in-law of Q (d) Q is the son of P

### ANSWERS

1. **ic)**: M is the maternal uncle of R means M is the brother of the mother (say K) of R **i.e.**  $N + K - R$ .
2. (rf): M is the uncle of P means M is the brother of the father (say K) of the sister (say T) of P **i.e.**  $M \bullet K + T \times P$ .
3. (6):  $P \times Q - S$  means P is the son of Q who is the wife of S **i.e.** P is the son of S or S is the father of P.
4. **id)**:  $T - S \times B - M$  means T is the wife of S who is the son of B who is the wife of M **Le.** T is the wife of the son of M (father) **Le.** T is the daughter-in-law of M. But as this is not given in the choice, so the fact in **(d)** derived from  $S \times B$  is true.
5. (6):  $Z \times T - S \times U$  means Z is the son of T who is the wife of S who is the son of U **i.e.** Z is the son of S who is the son of U **Le.** Z is the grandson of U or U is the grandmother or grandfather of Z. From the choice, (6) is true.  $\tau$
6. (c): S is the aunt of T means S is the sister of the father (say M) of T **Le.**  $S \times M \bullet T$ .
7. **ia)**: Q is the maternal uncle of P means P is the son of the sister of Q **Le.** P is the son of the husband (say B) of the sister (say R) of Q **U.**  $(P + B - R \times Q)$ .
8. (c): C is the niece of D means C is the daughter of the brother (say P) of D **Le.**  $C - P + D$ .
9. **id)**: A is the daughter of B means A is the sister of the son (say C) of the wife (say D) of B **i.e.**  $A \bullet C \bullet D \bullet B$ .
10. **ia)**:  $P \bullet Q - R$  means P is the daughter of Q who is the husband of R **Le.** R is P's mother.
11. (c):  $P \times Q + R$  means P is the brother of Q who is the daughter of R **i.e.** P is the son of R.
12. **ia)**:  $P + Q \times R$  means P is the daughter of Q who is the brother of R **Le.** P is the niece of R.
13. **ic)**: S is the niece of T means T is the brother of the father (say M) of S **Le.**  $T \bullet M \times S$ .
14. **ic)**: Clearly, statement **ic)** can be dispensed with while answering the above question.
15. **id)**: A is the daughter of B means A is the sister of the son (say D) of B **i.e.**  $A + D \bullet B$ .

- 16 *Ad*):  $M - N \times T + Q$  means M is the mother of N who is the father of T who is the daughter of Q *i.e.* M is the grandmother of the daughter of Q *i.e.* M is the mother of Q. Since this is not given in the choices, so the fact in (d) derived from  $N \times T + Q$  is true.
17. (c):  $P + R + S + Q$  means P is the daughter of R who is the father of S who is the father of Q *i.e.* P is the sister of the father (S) of Q *i.e.* P is the aunt of Q.
18. (a):  $P - R + Q$  means P is the wife of R who is the father of Q *i.e.* P is the mother of Q.
- 19 *Ad*):  $P \times R + Q$  means P is the brother of R who is the daughter of Q *i.e.* P is the son of Q.
- 20 *Ad*):  $P \times R - Q$  means P is the brother of R who is the wife of Q *i.e.* P is the brother-in-law of Q.
21. (c):  $P + R + Q$  means P is the father of R who is the daughter of Q *i.e.* P is the father of R and Q is the mother of R *i.e.* P is the husband of Q.
- 22 *Ad*):  $P + R + Q$  means P is the daughter of R who is the father of Q *i.e.* P is the sister of Q
23. (o):  $P \times R + Q$  means P is the brother of R who is the father of Q *i.e.* P is the uncle of Q
24. (c):  $P - R \times Q$  means P is the wife of R who is the brother of Q *i.e.* P is the sister-in-law of Q.