

new banking systems □□□ss tp na.....(1)

officer in uniform□ or mu at.....(2)

new bank officer□ or bk na.....(3)

systems in bank□ bk at ss.....(4)

There is only one word common in statements (1) & (4)

So, systems □□□ ss

similarly, from statements (3) & (4)

bank□□□bk and

in □□at

From statements (2) & (3)

officer □□or and

new □□na

uniform □ mu

banking □□tp.

26. (4) 'bk' stands for 'bank'.

27. (4) 'ss mu' stands for 'systems uniform'.

28. (1) 'new officer' be coded as 'or na'.

29. (2) 'bank officer in uniform' be coded as 'bk at or mu'.

30. (3) 'in' is coded as 'at'.

Solutions can be made by drawing graphs and ANSWERS ARE GIVEN BELOW for directions

31. (b) 32. (c) 33. (b) 34. (d) 35. (a) 36. (b) 37. (c) 38.(a) 39. (c) 40. (d) 41. (d) 42. (a) 43. (c)

44. (c) 45. (b) 46.(b) 47. (b) 48. (d) 49. (c) 50. (a) 51. (d) 52. (b) 53. (b) 54. (c) 55. (a) 56. (c)

57. (b) 58.(c)

UNIT -3

CHAPTER 6

BLOOD RELATION

BASIC CONCEPT BUILDER

INTRODUCTION

The questions which are asked in this section depend upon Relation. You should have a sound

knowledge of the English blood relation in order to solve the questions. In the blood relation questions, a chain of relationships is given in form of information and on the basis of which, relation between any two or more than two members of the chain is asked. So first we should know about the relations in detail:-

Explaining the relations

Blood relations can be categories into following two categories:-

1. Relations of Paternal side:-

1. Father's father → Grandfather
2. Father's mother → Grandmother
3. Father's brother → Uncle
4. Father's sister → Aunt
5. Children of uncle → Cousin
6. Wife of uncle → Aunt
7. Children of aunt → Cousin
8. Husband of aunt → Uncle

2. Relations of Maternal side:-

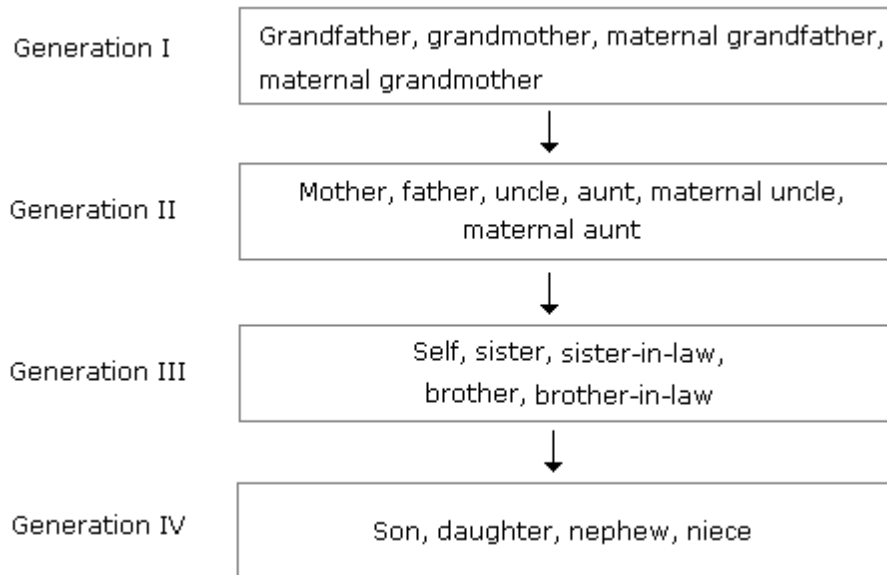
1. Mother's father → Maternal grandfather
2. Mother's mother → Maternal grandmother
3. Mother's brother Maternal uncle
4. Mother's sister → Aunt
5. Children of maternal uncle → Cousin
6. Wife of maternal uncle → Maternal aunt

3. Important Relations to understand:-

1. Mother's or Father's daughter » Sister
2. Mother's or Father's son » Brother
3. Grandfather's son » Father or Uncle
4. Grandmother's son » Father or Uncle
5. Grandfather's daughter » Mother or Aunt
6. Grandmother's daughter » Mother or Aunt
7. Paternal Grandfather's or Grandmother's only son » Father
8. Maternal Grandfather's or Grandmother's only daughter » Mother
9. Maternal Grandfather's or Grandmother's only son-in-law » Father
10. Paternal Grandfather's or Grandmother's only daughter-in-law » Mother
11. Paternal aunt's or uncle's only brother » Father
12. Maternal aunt's or uncle's only sister » Mother
13. Mother's or father's mother » Grandmother
14. Son's wife » Daughter-in-Law
15. Daughter's husband » Son-in-Law
16. Husband's or wife's father » Father-in-Law
17. Husband's or wife's mother » Mother-in-Law
18. Husband's or wife's sister » Sister-in-Law
19. Husband's or wife's brother » Brother-in-Law
20. Brother's son » Nephew
21. Brother's daughter » Niece
22. Uncle or aunt's son or daughter » Cousin

23. Sister's husband » Brother-in-Law
24. Brother's wife » Sister-in-Law
25. Grandson's or granddaughter's daughter » Great grand daughter
26. Grandson's or granddaughter's son » Great grand son

Relations from one generation to next :-



TYPES OF BLOOD RELATION

Blood relation questions are mainly classified in following three categories:-

- 1. Nested Blood Relationship**
- 2. Arrangement Based Blood Relationship**
- 3. Coded Blood Relationship**

NESTED BLOOD RELATIONSHIP

Example:- 1 Pointing to a photograph, Rekha says to Lalli, "The girl in the photo is the second daughter of the wife of only son of paternal grandmother of my younger sister." How this girl of photograph is related to Rekha ?

1.

5.

- Fifth sentence is a simpler form of above complex sentence. Now, above question can be rewritten as
Pointing to a photograph, Rekha says to Lalli, “ The girl in the photo is my sister.”

Example:- 2 Pointing to a photograph Arun said, ‘She is the mother of my brother’s son’s wife’s daughter.’ How is Arun related to the lady ?

The woman in the photograph is Arun Brother's Daughter-in-law. Because son's wife's daughter is daughter-in-law to his brother.

2. **1.**

1. The only son of my mother → Its me (*If Suresh is a male)
2. He is my son.

OR

- Pointing to a photograph of a boy Suresh said, “He is the son of my only brother.”

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Example:- 4 Looking at a portrait of a man, Shiv said, “His mother is the wife of my father’s son. Brothers and sisters I have none.” At whose portrait was Shiv looking?

Solution:- Since Shiv has no brother or sister, so he is his father’s only son. Now, wife of my father’s son - my wife. So, Shiv’s wife is the man’s mother or the man is Shiv’s son.

Example:- 5 Pointing to a girl in the photograph, Ajay said, “Her mother’s brother is the only son of my mother’s father.” How is the girl’s mother related to Ajay ?

Solution:- Only son of Ajay’s mother’s father - Ajay’s maternal uncle. So, the girl’s maternal uncle is Ajay’s maternal uncle. Thus, the girl’s mother is Ajay’s aunt.

ARRANGEMENT BASED BLOOD RELATIONSHIP

Arrangement based problems are generally solved with the help of **Family Tree**. Family tree construction is based upon the given information.

So first we should categorise the arrangement information into mainly following three categories:-

1. Introductory Information

2. Direct Information

3. Indirect Information

Introductory information tells us the basic elements of the problem like, “How many members are there in the arrangement, their names and their likes and dislikes.” In short it is preliminary information to understand the structure of the given problem.

Direct information is distributed throughout the given arrangement. So identification of this part of information is very important. We should start our solution with direct information.

Information which is not directly arranged, is **Indirect Information**. After the arrangement of direct information, indirect info will be left with less and easy ways to arrange.

Family tree can be constructed part by part during the execution of above categorisation.

Family Tree:- Family tree is a process to solve blood relation problems.

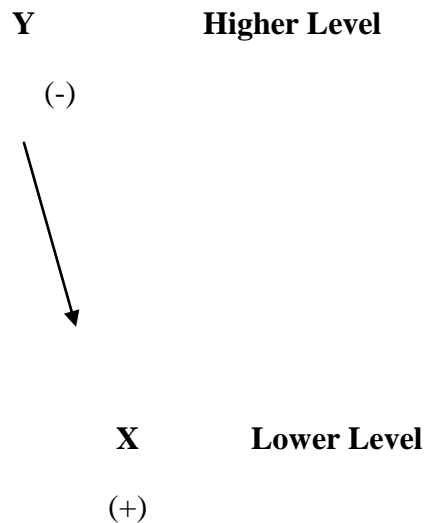
Family Tree Construction

Our Convention to construct a family tree :-

Gender:- We will give ‘+’ sign to Male and ‘-’ sign to Female.

Generation Gap:- If 'X' is son of 'Y' and Y is a Female.

Following tree is representation of given relation,

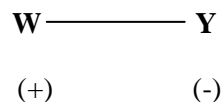


A person from **old generation** should be placed at higher level and younger generation will be placed the lower level.

Relations:-If,

(1). There is a relation of Husband-Wife between W (Male) and Y (Female).

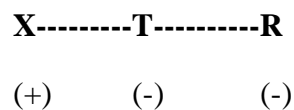
It is represented as



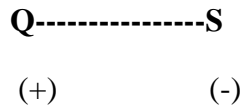
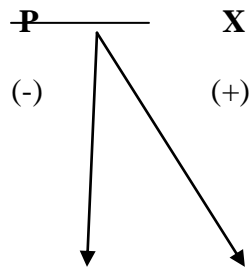
Because husband and wife belong to same generation so they will be placed at the same level.

(2). There are relations of Brother- Sister, Brother- Brother or Sister- Sister between X (Male), T (Female), R (Female) .

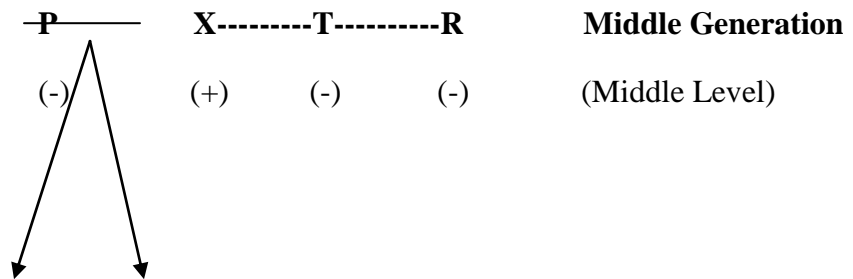
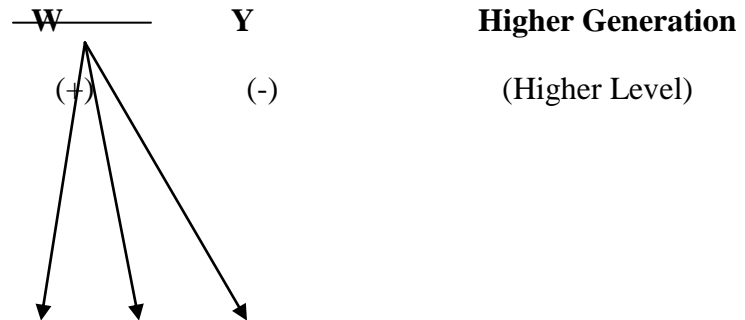
These are represented as



(3). If X married to P and they have two children Q and S, then relations can be represented as



Now if we will combined the parts of above family tree then, it will look like following:-



Direction for Examples (6-10):-

Read the following information carefully and answer the questions given below:

A B D F G H and K are seven members of a family. They belong to three generations. There are two

married couples belonging to two different generations. D is son of H and is married to K. F is granddaughter of B. G's father is grandfather of A. B's husband is father-in-law of K. H has only one son.

Example:- 6 How is F related to G ?

Example:- 7 How is H related to B ?

Example:- 8 How is K related to G ?

Example:- 9 What are the names of married ladies ?

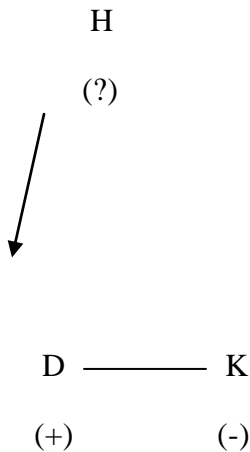
Example:- 10 How many female members are there among them ?

Solution(6-10):-

Introductory Information:- There are seven members in the family named as, A, B, D, F, G, H and K. They belong to **three generations** and there are **two married couples**.

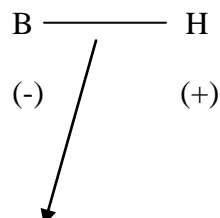
Direct Information:-

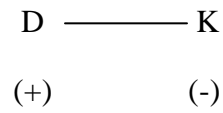
1. D is son of H and is married to K.



2. B's husband is father-in-law of K.

It means H is husband of B.

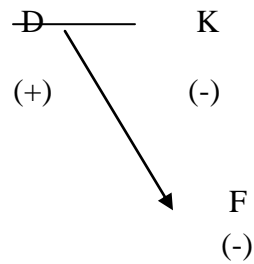
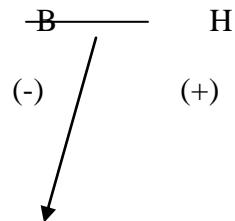




3. H has only one son and that is D.

Indirect Information:-

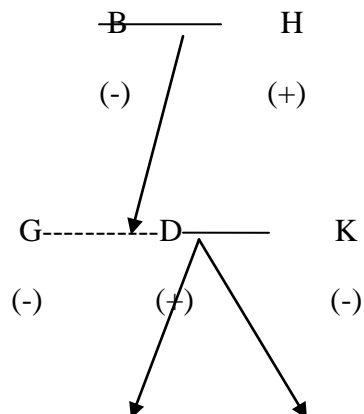
1. F is granddaughter of B.



2. G's father is grandfather of A.

We know that B and H are grandparents in the family and H is grandfather.

It means A is sibling of F and G is the sister of his only brother D.



A F
(?) (-)

Now, we can easily answer the above questions.

Answer of Example:- 6 F is niece of G or we can say G is aunt of F.

Answer of Example:- 7 H is husband of B.

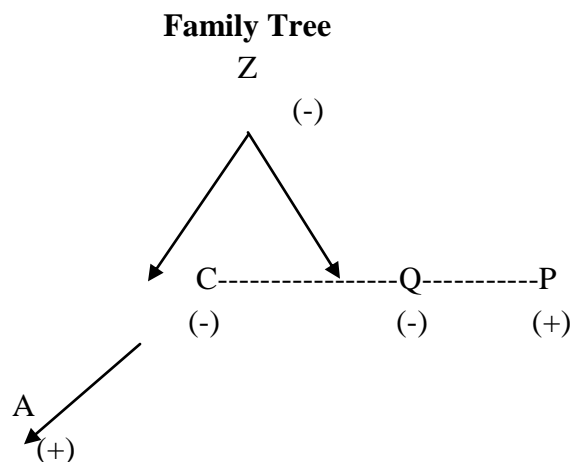
Answer of Example:- 8 K is sister-in-law of G.

Answer of Example:- 9 Married ladies are B and K.

Answer of Example:- 10 We can't determine the female members, because we don't know the gender of A.

Example:- 11 A is the son of C; C and Q are sisters; Z is the mother of Q and P is the son of Z. How is P related to A ?

Solution:-



Direction for Examples:- (12-14)

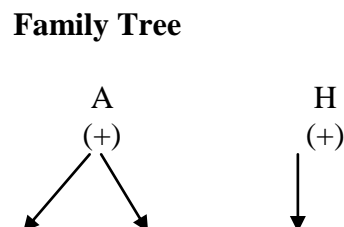
A is the father of C but C is not his son. E is the daughter of C. E is the spouse of F. B is the brother of C. D is the son of B. G is the spouse of B. H is the father of G.

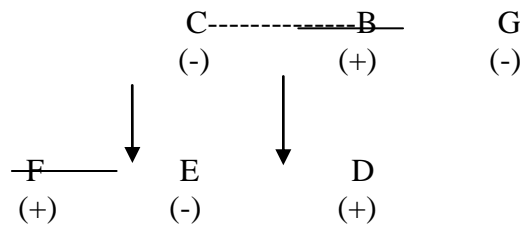
Example:- 12 How is A related to F ?

Example:- 13 How is D related to E ?

Example:- 14 How is H related to F ?

Solution:-





Answer of Example:- 12 A is grand father-in-law of F.

Answer of Example:- 13 D is a cousin of E.

Answer of Example:- 14 H and F are from two different family trees, so they do not have a specific blood relation between them.

CODED BLOOD RELATIONSHIP

Under the above mentioned category, relationships in the questions are in coded form.

Point To Remember

Generation Gap and Gender Identification:- Generation gap will help us a lot to solve such kind of questions. We can quantify generation gap Like if,

“**A%B** means A is **brother** Of B”

From the above statement, we can understand two things easily,

(I) “A and B are from same generation so we can say there is **ZERO** generation gap.” Similarly there are some more relations with **ZERO** generation gap like Husband, Wife, Brother, Sister, Brother-in-law, Sister-in-law and Cousin.

(II) “A’s **gender** is **Male** and what’s about the gender of B, we cannot decide. B is either male or female.

If,

“**A%B** means A is **father** Of B” it means,

(I) “A is from previous generation as compare to B. So we can say there is **-1** generation gap.” Similarly there are some more relations with **-1** generation gap like Mother, Uncle, Aunt, Mother-in-law and Father-in-law.

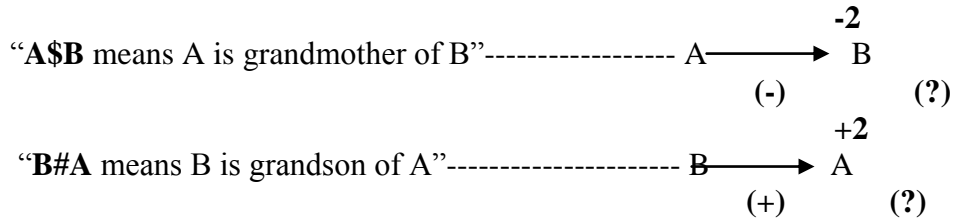
(II) “A’s **gender** is **Male**.

Similarly if “**A%B** means A is grandfather of B” it means,

(I) “A is two generation old as compare to B. So we can say there is **-2** generation gap.” Similar relations are Grandmother, Grandmother’s or Grandfather’s Brother or Sister.

(II) “A’s **gender** is **Male**.

We can conclude above discussion with the help of following statements,



Example:- 15 If,

A + B means A is the mother of B

A x B means A is the father of B

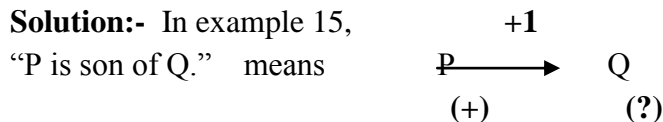
A \$ B means A is the brother of B

A @ B means A is the sister of B

then which of the following means P is the son of Q and what is the gender of Q in the right option ?

- a) Q + R @ P @ N b) Q + R x P @ N c) Q x R \$ P @ N d) Q x R \$ P \$ N

Solution:- In example 15,



In options **a**, **b** and **c** “P@N means P is **sister** of N” it implies P’s gender is **female** so we left with option **d**. In option **d** generation gap from Q to P is $-1 + 0 = -1$. Q is from previous generation as compare to P.

-1 0

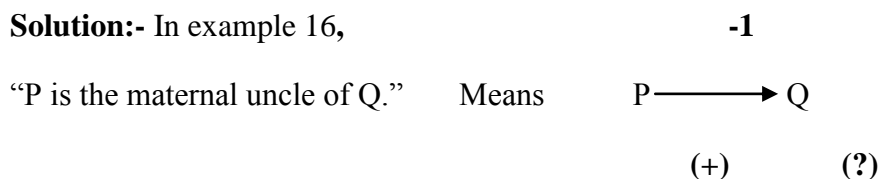
$\underset{(+)}{Q} \xrightarrow{+1} \underset{(+)}{R} \xrightarrow{+1} \underset{(+)}{P} \xrightarrow{+1} \underset{(?)}{N}$ It means Q is **father** of R and R is brother of P.

(+) (+) (+) (?)

Example:- 16 If A + B means A is the mother of B; A - B means A is the brother B; A % B means A is the father of B and A x B means A is the sister of B, which of the following shows that P is the maternal uncle of Q?

- a) Q - N + M x P b) P + S x N - Q c) P - M + N x Q d) Q - S % P

Solution:- In example 16,



In option **b**, “P+S means P is **mother** of S.” It implies P is a **female**. So option **b** easily eliminated. **0 -1 0** **-1**

In option **a**, $\underset{(+)}{Q} \xrightarrow{-1} \underset{(+)}{N} \xrightarrow{+1} \underset{(+)}{M} \xrightarrow{+1} \underset{(+)}{P}$ Generation gap from Q \longrightarrow P is $0 + (-1) + 0 = -1$ it

In option d,

	0	-1		-1	+1
--	----------	-----------	--	-----------	-----------

also eliminated. With the help of above discussion, we can say that c is the only right answer.

EXERCISE OF BLOOD RELATION

CONTENT AS PER IBPS LEVEL

1. A family has a man, his wife, their four sons and their wives. The family of every son also has 3 sons and one daughter. Find out the total number of male members on the whole family?

(a) 4 (b) 8 (c) 12 (d) 17

2. A and B are brothers. C and D are sisters. A's son is D's brother. How is B related to C?

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

3. 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?

(a) Grandmother (b) Grandfather (c) Daughter (d) Grand daughter

Read the following information carefully and answer the questions given below: Ravi is the son of Aman's father's sister. Sahil is son of Divya who is mother of Gaurav and grandmother of Aman.

Ashok is the father of Tanya and grandfather of Ravi. Divya is wife of Ashok.

4. How is Ravi related to Divya?

(a) Nephew (b) Grandson (c) Son (d) Data inadequate (e) None of these

5. How is Gaurav's wife related to Tanya?

(a) Niece (b) Sister (c) Sister-in-law (d) Data inadequate (e) None of these

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 daughter of the brother of C's father.

6. How is C related to F?

(a) Cousin (b) brother (c) son (d) Uncle (e) None of these

7. (ii) How many male players are there?

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

8. How many female players are there?

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

9. How is D related to A?

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

Read the following information carefully and answer the questions given below:

Prashant Arora has three children—Sangeeta, Vimal and Ashish. Ashish married Monika, the eldest daughter of Mr. and Mrs. Roy. The Roys married their youngest daughter to the eldest of Mr. and Mrs. Sharma, and they had two children named Amit and Shashi. The Roys have two more children, Roshan and Vandana, both elder to Veena. Sameer and Ajay are sons of Ashish and Monika. Rahsmi is the daughter of Amit.

10. What is the surname of Rashmi?

- (a) Sharma (b) Roy (c) Arora (d) Cannot be determined (e) None of these

11. How is Sameer related to Monika's father?

- (a) Grandson (b) Son (c) Cousin (d) Son-in-law (e) None of these

12. What is the surname of Sameer?

- (a) Roy (b) Sharma (c) Arora (d) Cannot be determined (e) None of these

13. How is Mrs. Roy related to Ashish?

- (a) Aunt (b) Mother-in-law (c) Mother (d) Sister-in-law (e) None of these

14. If 'A\$B' means 'A is the father of B', 'A * B' means 'A is the mother of B' 'A @ B' means 'A is the wife of B', then which of the following means 'M is the grandmother of N'?

- (a) M*\$N@R (b) M*\$R@N (c) M*\$R\$T@N (d) M*\$R@T@N (e) None of these

Read the following information carefully to answer the question given below:

(i) 'A × B' means 'A is the brother of B';

(ii) 'A ÷ B' means 'B is the father of A';

(iii) 'A + B' means 'A is the sister of B';

(iv) 'A - B' means 'A is the mother of B';

15. Which of the following means 'Q is the paternal uncle of K'?

(a) $K \times P \div M \times Q$

(b) $K \times B \div N \times Q \times D$

(c) $Q \times L \div R \times K$

(a) Only (a) (b) Only (b) (c) Only (c) (d) Both (a) and (b) (e) None of these

16. Which of the following statements is/are superfluous to answer the above question?

(a) (i) only (b) (ii) only (c) (iii) only (d) Only (iii) and (iv) (e) None

17. If 'P+Q' means 'P is the father of Q' 'P×Q' means 'P is the brother of Q'; 'P-Q' means 'P is the mother of Q', then which of the following is definitely true about C-A+B?

(a) B is the son of A. (b) A is the son of C. (c) B is the father of A. (d) C is the mother of B.