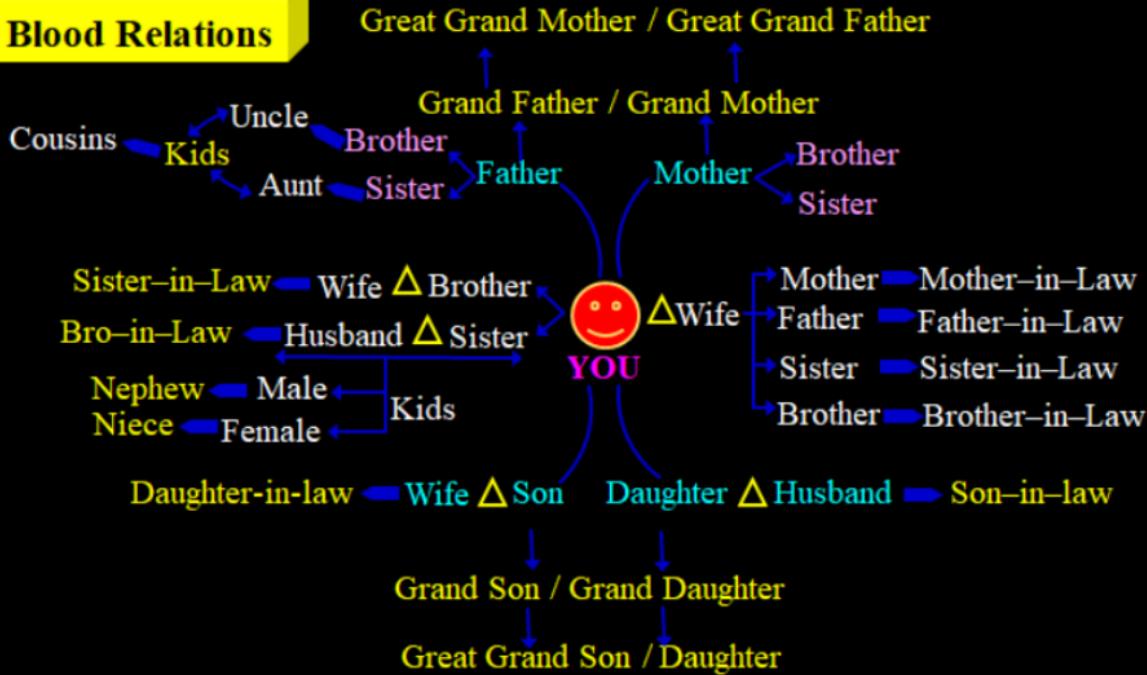


Blood Relations



→ of of of of . → 90 %

→ group Information → 200 %

→ mathematical operators - 50 %

$\sigma_f = \sigma_g =$ (का)

male = +

female = -

Couple = $\boxed{\wedge}$

Parent, child \Rightarrow | Parent
child.

B, B-S, B-S, S-B " ——— "

A is son of B



B is parent

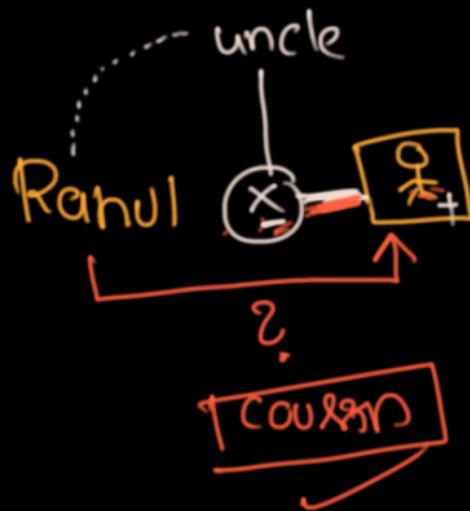
A (h) brother of -



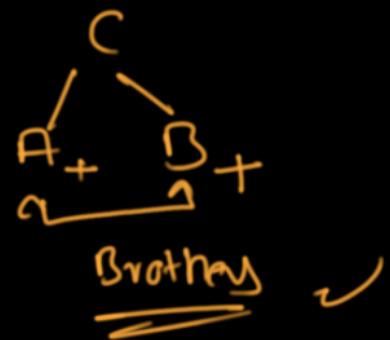
only  → one

A - B - C - D

pointing in a photo graph, Rahul said " he is the brother of (my uncle's daughter)" how is the man related to rahul?



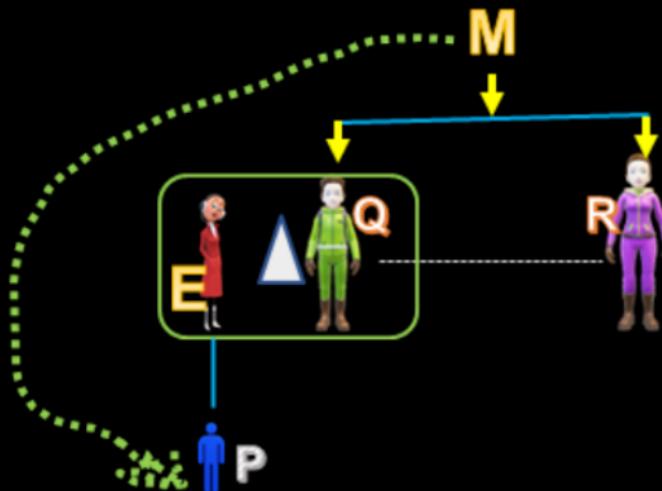
A and B are children of C , A is son of C, but B is not a daughter of C
how is A and B related each other?



Blood Relations

Q. M has a son Q and a daughter R. He has no other children. E is the mother of P and daughter-in law of M. How is P related to M? **(GATE – 16) (1M)**

- (a) P is the son-in-law of M
- (b) P is the grandchild of M
- (c) P is the daughter in law of M
- (d) P is the grandfather of M

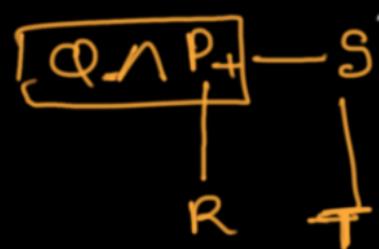


P, Q, R, S and T are related and belong to the same family. P is the brother of S. Q is the wife of P. R and T are the children of the siblings P and S respectively.

Which one of the following statements

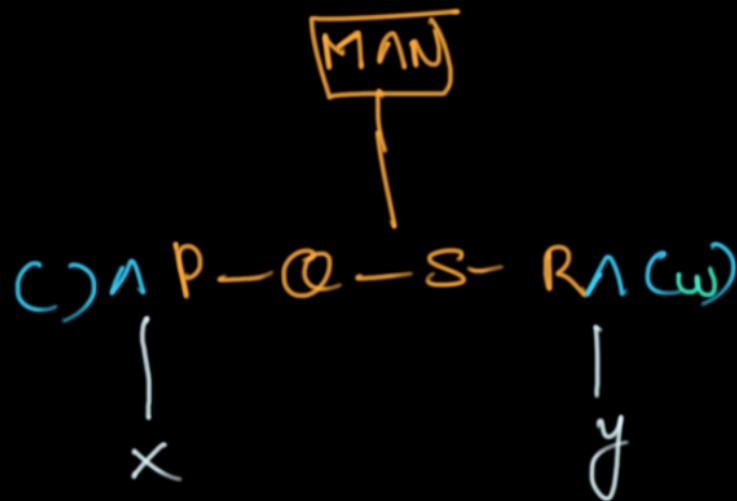
is necessarily FALSE? (GATE-19)

- (a) S is the sister-in-law of Q
- (b) S is the brother of P
- ~~(c) S is the aunt of T~~ X
- (d) S is the aunt of R



M and N had four children P, Q, R and S. Of them, only P and R were married. They had children X and Y respectively. If Y is a legitimate child of W, which one of the following statements is necessarily FALSE? (GATE-19)

- (a) W is the wife of P ~~X~~
- (b) W is the wife of R
- (c) M is the grandmother of Y
- (d) R is the father of Y



Q. Given the statements:

P is the sister of Q

Q is the husband of R

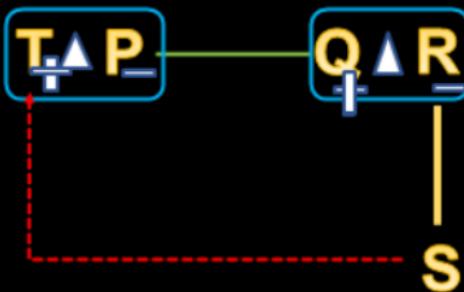
R is the mother of S

T is the husband of P

Based on the above information, T is _____ of S

(GATE-22-CE S1)

- (a) the grandfather
- (b) an uncle
- (c) the father
- (d) a brother



in a family

A,B,C,D,E,F, travelling together. A is son of C
B is wife of C,
D is daughter of B
E is brother of C
F is brother of E

how many male members in a family?

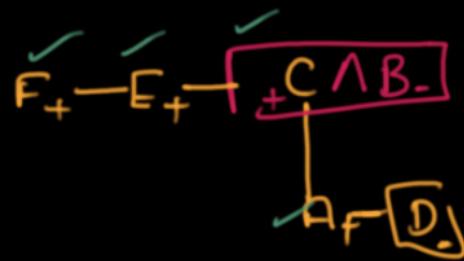
4

who are females in family?

B,D

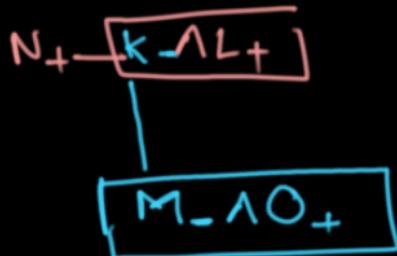
how is F related to D?

Uncle



K, L, M, N and O - K is the mother of M, who is the wife of O. N is the brother of K and L is the husband of K. How is L related to O?

- (a) Father
- (b) Mother-in-law
- (c) Brother-in-law
- (d) Father-in-law
- (e) Niece



mathmetical operators

" A + B " means A is daughter of B

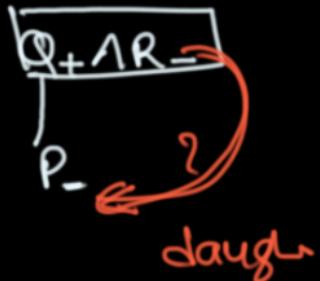
" A --B " means A is husband of B

" A * B " means A is brother of B

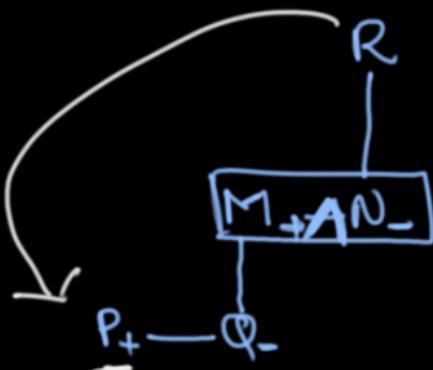
in the following questions

HOW IS " P " RELATED TO R?

$$\overrightarrow{P+Q-R}$$

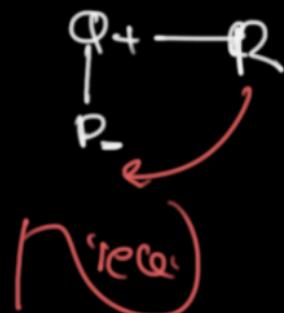


$$\overrightarrow{P*Q+M-N+R}$$



grand son

$$\overrightarrow{P+Q*R}$$



12. If A \$ B means A is son of B, A # B means A is brother of B and If A * B means A is father of B, then what does X # Y * Z \$ W mean?

- (a) W is X's brother's wife (b) W is X's wife
(c) W is X's mother (d) W is X's sister

13. A + B means A is the father of B, A - B means A is the wife of B, A x B means A is the brother of B, A / B means A is the daughter of B.

If P / R + S + Q, which of the following is true ?

- (a) P is the daughter of Q (b) P is the aunt of Q
(c) Q is the aunt of P (d) P is the mother of Q

11
times

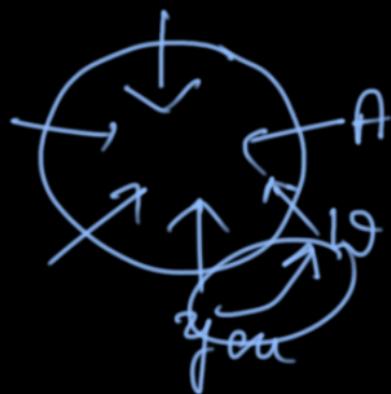
Seating Arrangement

- circle wise
- Box wise
- Row wise [column wise]

Circle with

$$0f = \Delta = \text{का} (\text{का}) \quad (\text{अंगठ}) = 51$$

$$\boxed{R \cdot H \cdot S = A \cdot \omega = \uparrow}$$
$$L.H.S = C \cdot \omega = \downarrow$$



SEATING ARRANGEMENT

B IS FIRST LEFT OF A

OR

A'S FIRST LEFT IS B

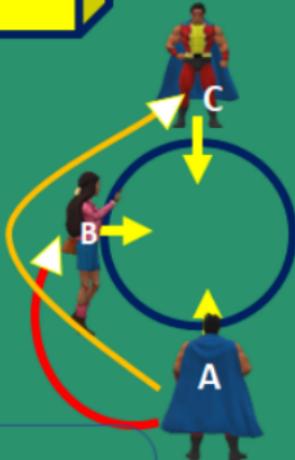
OR

A'S FIRST CLOCKWISE IS B

C IS 2ND LEFT OF A

A'S 2ND LEFT IS C

A'S 2ND CLW IS C

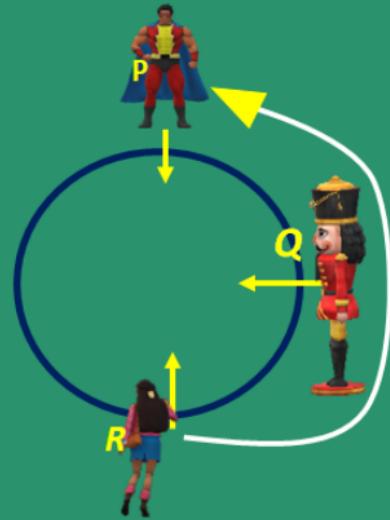


SEATING ARRANGEMENT

P IS SITTING 2ND RIGHT OF R

R'S 2ND RIGHT IS P

R'S 2ND ACLW IS P



Q. There are five building called V, W, X, Y and Z in a row (not necessarily in that order). V is to the West of W, Z is to the East of X and the West of V, W is the West of Y. Which is the building in the middle?

(GATE – 17) (1M)

- (a) V
- (b) W
- (c) X
- (d) Y





Q. Five numbers 10, 7, 5, 4 and 2 are to be arranged in a sequence from left to right following the directions given below:

1. No two odd or even numbers are next to each other.
2. The second number from the left is exactly half of the left-most number.
3. The middle number is exactly twice the right-most number.

Which is the second number from the right?

(GATE-19-INST/PI) (1M)

- (a) 2 (b) 4 (c) 7 (d) 10

Consider five people- Mitra, Ganga, Rekha, Lakshmi and Sana, Ganga is taller than both Rekha and Lakshmi. Lakshmi is taller than Sana. Mita is taller than Ganga. Which of the following conclusions are true?

1. Lakshmi is taller than Rekha
2. Rekha is shorter than Mita
3. Rekha is taller than Sana
4. Sana is shorter than Ganga

(GATE 19)

- (a) 1 only (b) 1 and 3
(c) 3 only (d) 2 and 4

$$M > G > R$$

$$M > G > L > S$$

Leela is older than her cousin Pavithra, pavithras brother Shiva is older than Leela. When Pavithra and shiva are visiting Leela, all three like to play chess. Pavithra wins more often than Leela does.
(EC/ME 2016)

Which one of the following statements must be TRUE based on the above?

- (a) When Shiva plays chess with Leela and Pavithra, he often loses.
- (b) Leela is the oldest of the three α
- (c) Shiva is a better chess player than Pavithra α
- (d) Pavithra is the youngest of the three

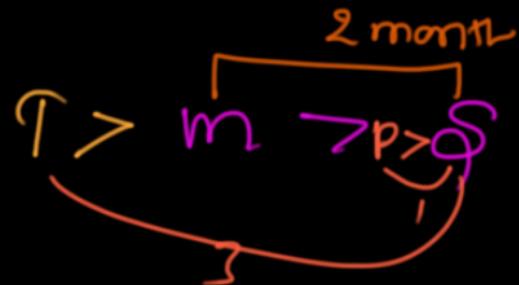
$$S > L > P$$

The diagram illustrates the age relationships between S, L, and P. The top line represents S, the middle line represents L, and the bottom line represents P. The checkmarks indicate that statement (b) and statement (c) are true.

A flat is shared by four first year undergraduate students. They agreed to allow the oldest of them to enjoy some extra space in the flat. Manu is two months older than Sravan, who is three months younger than Trideep. Pavan is one month older than Sravan. Who should occupy the extra space in the flat?

(EC/IN 2016) (2M)

- (a) Manu
- (b) Sravan
- (c) Trideep
- (d) Pavan



Q. Five friends P, Q, R, S and T went camping. At night, they had to sleep in a row inside the tent. P, Q, and T refused to sleep next to R since he snored loudly. P and S wanted to avoid Q as he usually hugged people in sleep.

Assuming everyone was satisfied with the sleeping arrangements.
what is the order in which they slept?

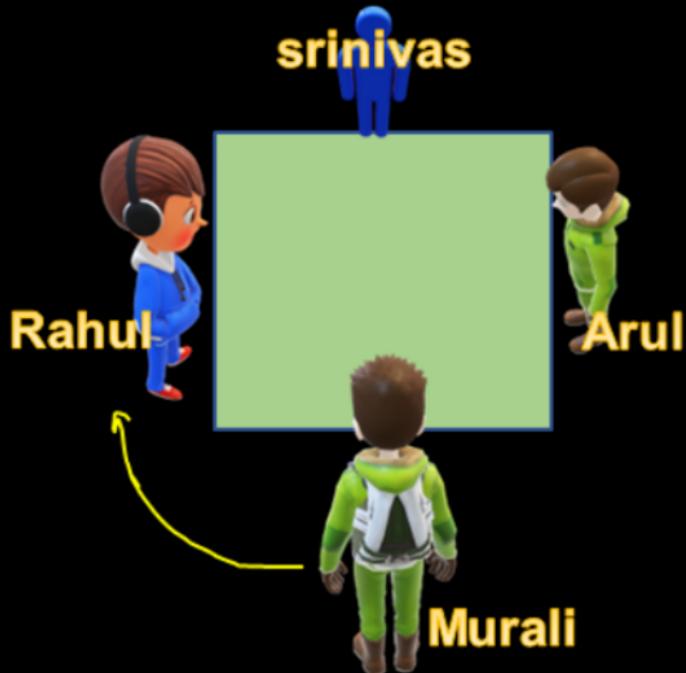
(GATE-20-CE SET1) (1M)

- (a) Q T S  P R
- (b) S P R T Q 
- (c) R S P T Q
- (d) Q R S P T 

Seating Arrangements/Analytical Reasoning

Q. Rahul, Murali, Srinivas and Arul are seated around a square table. Rahul is sitting to the left of Murali. Srinivas is sitting to the right of Arul. Which of the following pairs are seated opposite each other **(GATE – 17) (1M)**

- (a) Rahul and Murali
- (b) Srinivas and Arul
- (c) Srinivas and Murali
- (d) Srinivas and Rahul



Four people are standing in a line facing you. They are **Rahul, Mathew, Seema and Lohit**. One is an **engineer**, one is a **doctor**, one a **teacher** and another a **dancer**. You are told that:

1. Mathew is not standing next to Seema✓
2. There are two people standing between Lohit and the engineer
3. Rahul is not a doctor
4. The teacher and the dancer are standing next to each other
5. Seema is turning to her right to speak to the doctor standing next to her.

Who among them is an engineer? (GATE – 19)

- (a) Mathew
- (b) Rahul
- (c) Seema
- (d) Lohit

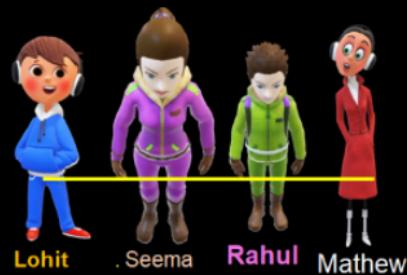
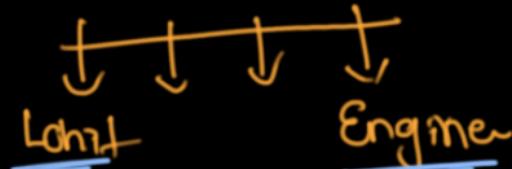
1. Mathew is not standing next to Seema

2. There are two people standing between Lohit and the engineer

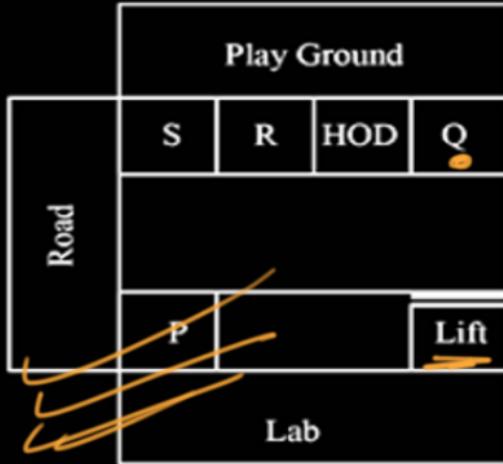
3. Rahul is not a doctor

4. The teacher and the dancer are standing next to each other

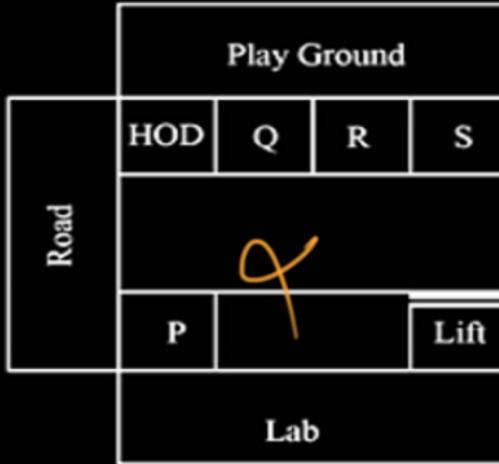
5. Seema is turning to her right to speak to the doctor standing next to her.



a)



(b)



After the inauguration of the new building the Head of the Department (HoD) collated faculty preferences for office space.

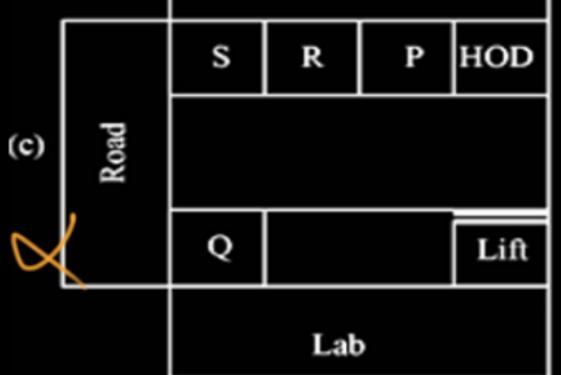
P wanted a room adjacent to the lab.

Q wanted to be close to the lift.

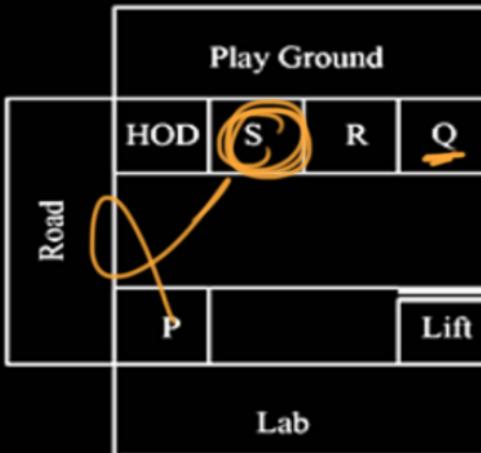
R wanted a view of the playground and

S wanted a corner office.

Assuming that everyone was satisfied, which among the following shows a possible allocation



(d)



(GATE-20-CE SET2) (2M)

Q. Three of the five students allocated to a hostel put in special requests to the warden. Given the floor plan of the vacant rooms, select the allocation plan that will accommodate all their request.

Request by X: Due to pollen allergy I want to avoid a wing next to the garden.

Request by Y: I want to live as far from the washrooms as possible, since I am very sensitive to smell.

Request by Z: I believe in Vasstu and so want to stay in the South-west wing.

The shaded rooms are already occupied. WR is washroom

(a)



(b)



(c)

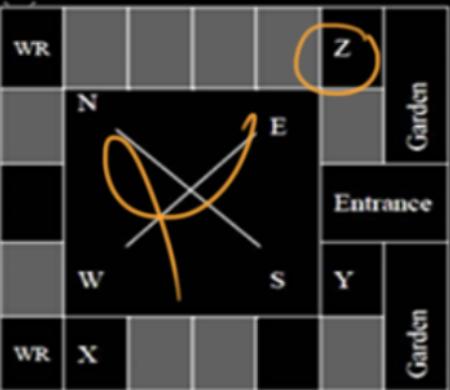


(d)





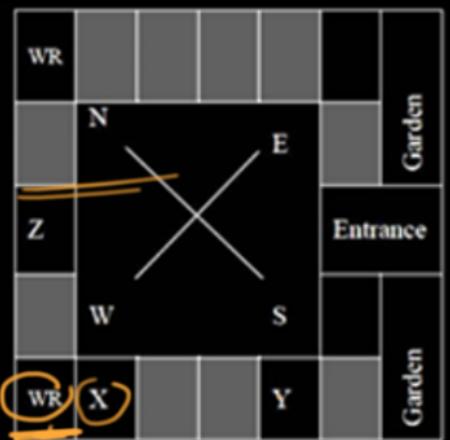
(a)



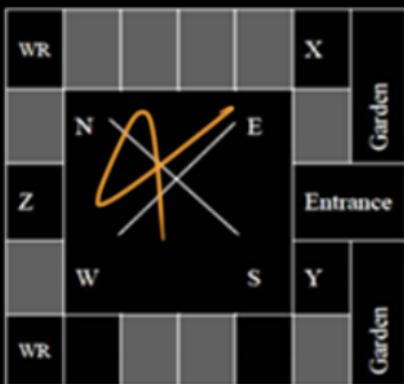
(b)



(c)



(d)



S, T, U, V, W, X, Y, and Z are seated around a circular table.

T's neighbours are Y and V.

Z is seated third to the left of T and second to the right of S.

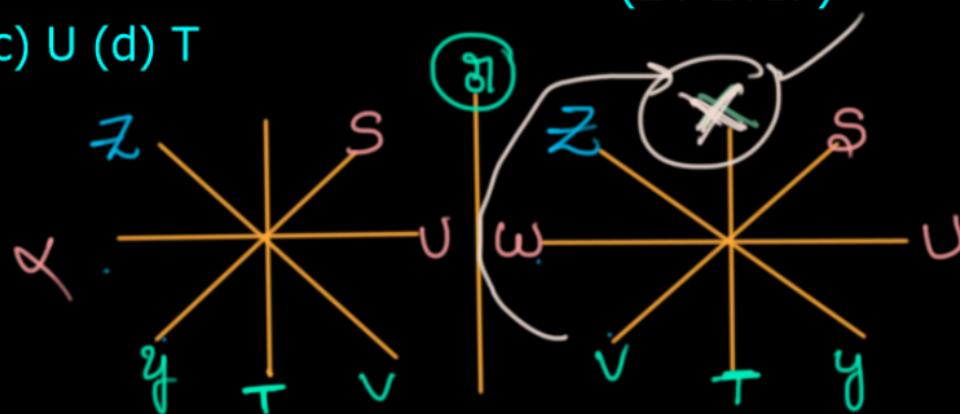
U's neighbours are S and Y; and

T and W are not seated

opposite each other. Who is third to the left of V?

(EC-2017)

- ~~(a) X (b) W (c) U (d) T~~



N.T

99.91-1-

Syllogisms

Q. 1)

Q. Given below are two statements and four conclusions drawn based on the statements?

Statement 1: Some bottles are cups

Statement 2: All cups are knives.

Conclusion I: Some bottles are knives ✓

Conclusion II : Some knives are cups.

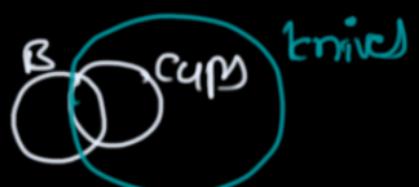
Conclusion III: All cups are bottles ✗

Conclusion IV: All knives are cups. ✗

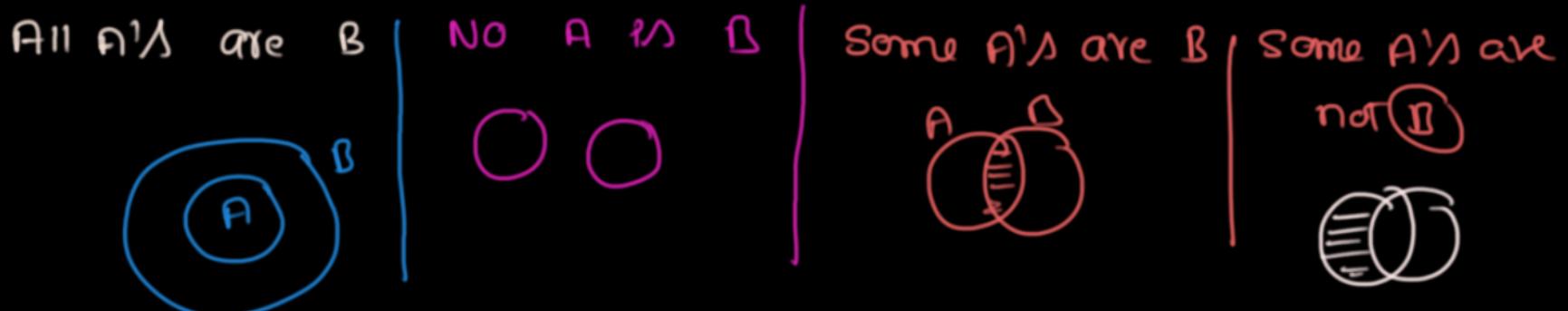
Which one of the following options can be logically inferred?

2M

(GATE-22-EE)



- (a) Only conclusion I and Conclusion II are correct
- (b) Only Conclusion II and conclusion III are correct
- (c) Only conclusion II and conclusion IV are correct
- (d) Only conclusion III and conclusion IV are correct



Directions (1 - 12) : Each of the following questions contains two Statements followed by two conclusions numbered I and II. You have to consider the two Statements to be true, even if they seem to be at variance with the commonly known facts.

You have to decide which of the given conclusions definitely follows from the given

Statements.

Give answer

- (a) if only I follows;
- (b) if only conclusion II follows;
- (c) if either I or II follows;
- (d) if neither I nor II follows;
- (e) if both I and II follow.

01. Statements: $N = O = P = Q > R$

Conclusions: I. $N > R$

II. $R = N$

④

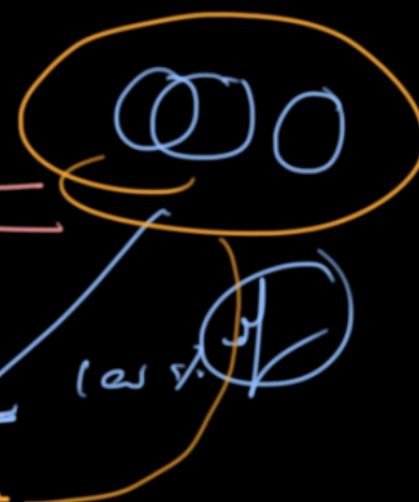
⑦

Statements:

Conclusions:

(i)

(ii)



Given below are two statements 1 and 2, and two conclusions I and II.

Statement 1: All entrepreneurs are wealthy.

Statement 2: All wealthy are risk seekers.

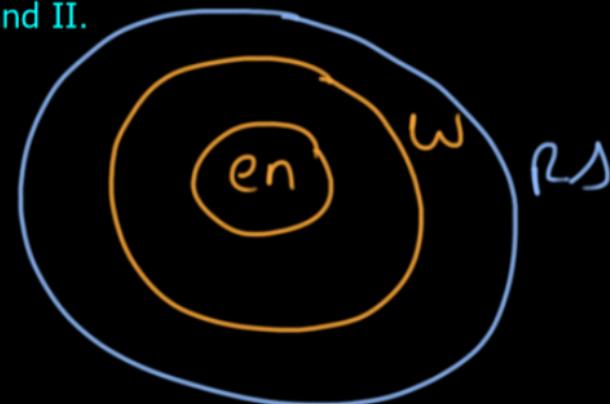
Conclusion I: All risk seekers are wealthy ✗

Conclusion II: Only some entrepreneurs are risk seekers ✗

Based on the above statements and conclusions,
which one of the following options is CORRECT?

(GATE-21-ME SET2)

- (a) Only conclusion II is correct
- (b) Both conclusions I and II are correct
- (c) Only conclusion I is correct
- (d) Neither conclusion I nor II is correct



2

/

statements:

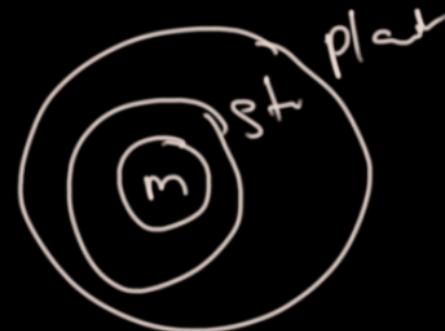
all moons are stars

all stars are planets

conclusions:

(i) all moons are planets ✓

(ii) all planets are stars ✗



statements:

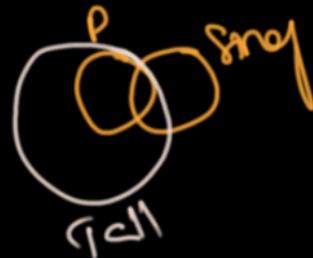
some players are singers

all players are tall

conclusions:

all singers are tall ~~✓~~

some singers are tall



Statements:

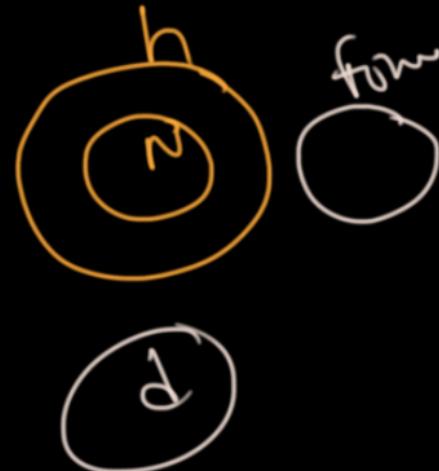
All names are houses.

No houses are foxes.

Conclusions:

I. All names are foxes. ✗

II. No houses are names
✗



Q. Given below are three statements and four conclusions drawn based on the statements.

Statement 1: Some engineers are writers.

Statement 2: No writer is an actor.

Statement 3: All actors are engineers.

Conclusion I: Some writers are engineers.

Conclusion II: All engineers are actors.

Conclusion III: No actor is a writer.

Conclusion IV: Some actors are writers.



OA

Which one of the following options can be logically inferred?

(GATE-22-IN, PI)

- (a) Only conclusion I is correct
- (b) Only conclusion II and conclusion III are correct
- (c) Only conclusion I and conclusion III are correct
- (d) Either conclusion III or conclusion IV is correct

Statements: $N \geq O \geq P = Q > R$

Conclusions:

I. $N > R$

II. $R = N$

$N \geq O \geq P$

$N \geq P$

$N \geq Q > R$



$N > R$

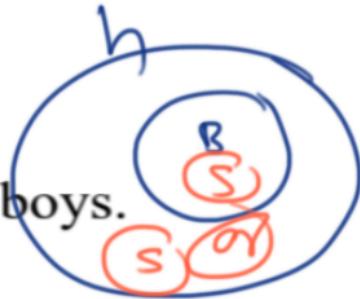
07. **Statements:** All boys are honest. Sachin is honest.

Conclusions:



I. Sachin is a boy.

II. All honest persons are boys.



08. **Statements:** Lawyers married only fair girls. Shobha is very fair.

Conclusions:



I. Shobha was married to a lawyer.

II. Shobha was not married to a lawyer.

09. **Statements:** All boys are mothers. All mothers are fathers.

Conclusions:



I. All mothers are boys. *q*

II. All boys are fathers *✓*

