

Question format:

Stmts:

Conclusions:



SYLLOGISM **

"Task:"

Using given Stmt's, decide
which given conclusion

follows

① All A are B

② Some x are y

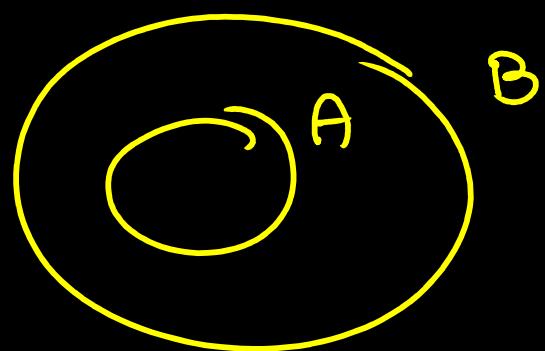
③ No L is M

④ * Some P are not Q

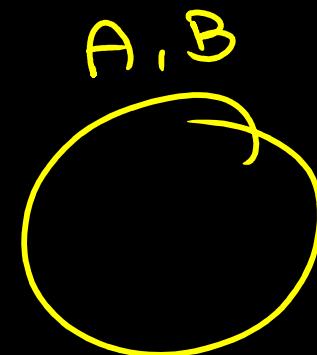


Stmts | Conclusion

① All A are B

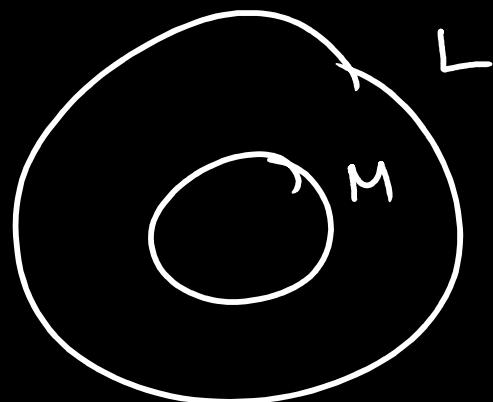
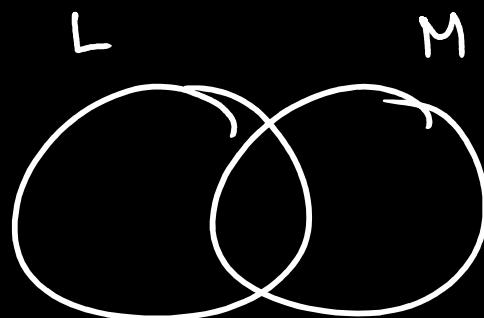


Basic Diagram



②

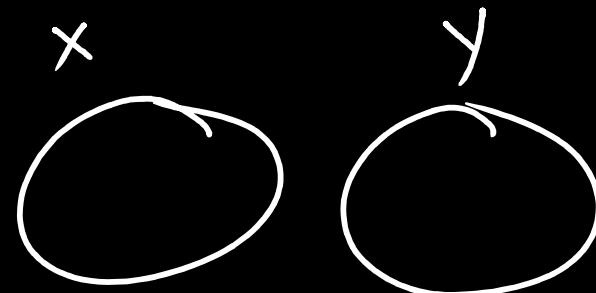
Some L are M



Basic Diagram

③

NO X is Y



Alternate
words

\equiv

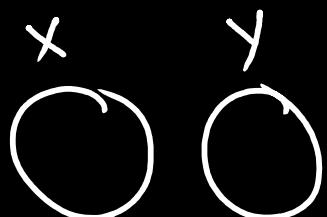
All A are B

→ Each A is B

→ Every A is B

Some \Rightarrow few, most

No x is y



All x are
not y

Q

Statement: All students are good

Conclusion: "Students in my class" are good ✓

Some students are good

** All S are T

⇒ Some S are T ✓

(All X are not Y)

No X is Y

⇒ Some X are not Y ✓

procedure:



①

Draw all possible diagrams,
satisfying given stmts.

②

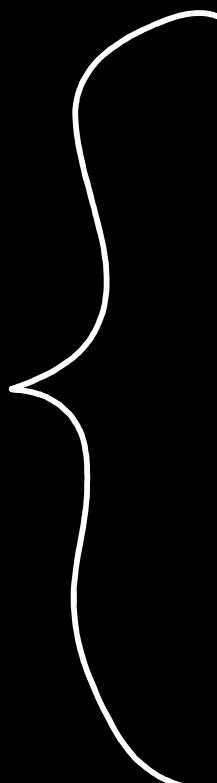
Given Conclusion follows, only if

③ "may be" possibility || it is true in all diagrams.

Conclusion satisfy 1 diagram is also True

either - or

either I or II follows

- 
- ① Both Conclusions not false / not true at a time.
 - ② Conclusion I true in few diagrams and Conclusion II true in remaining diagrams

Directions : 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 at 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 II follows;
- (c) if either I or II follows;
- (d) if neither I nor II follows and
- (e) if both I and II follow.

i

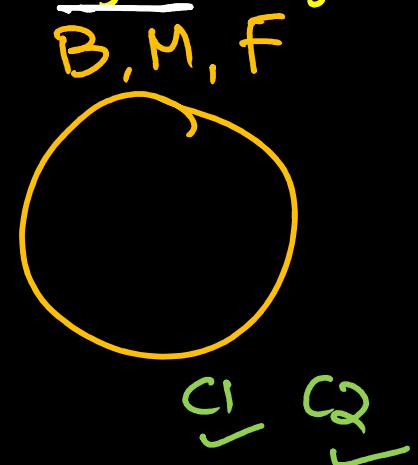
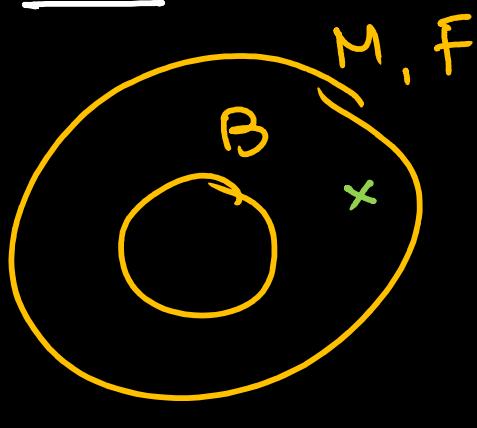
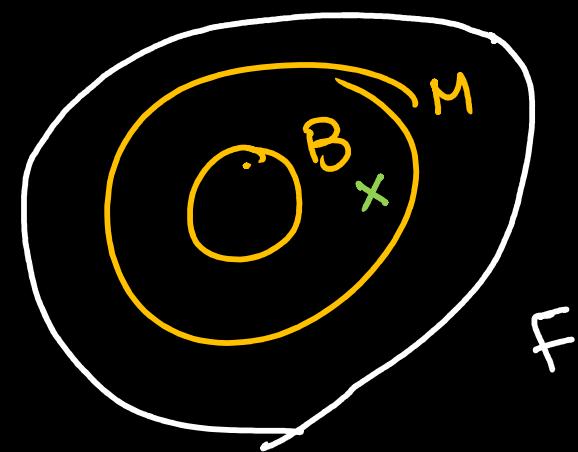
Statement: All boys are mothers.

All mothers are fathers.

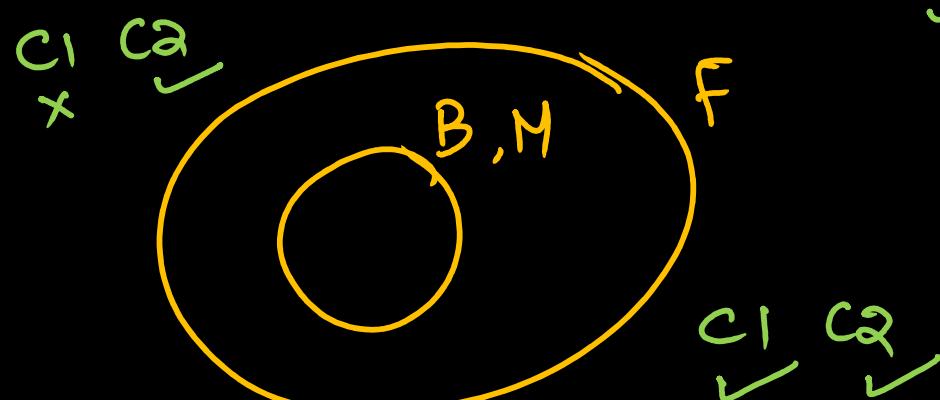
Conclusions: I. All mothers are boys.

II. All boys are fathers.

IV All M are B is possibility IV. All mothers maybe boys



C1 C2 ✓



NP

2

OP

✓

C1 C2 X

Statement 1 : Some villagers are poor.

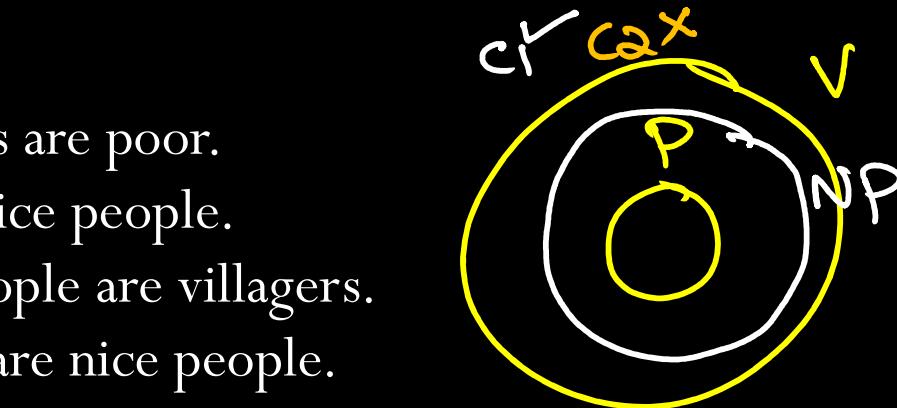
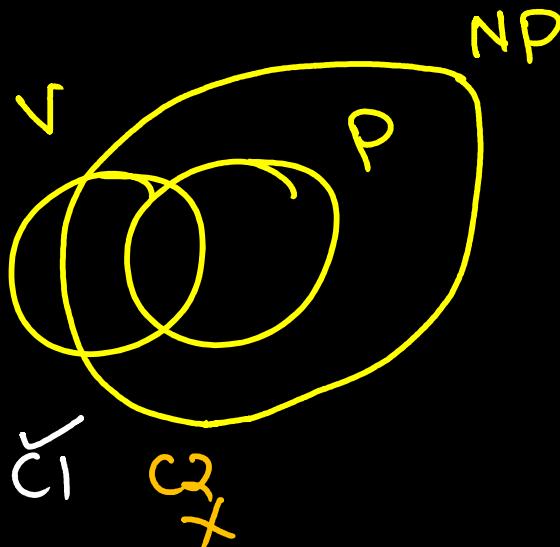
Statement 2 : All poor are nice people.

Conclusion I: Some nice people are villagers.

Conclusion II: No villagers are nice people.

1) Only conclusion I follows ✓

3) Either I or II follows

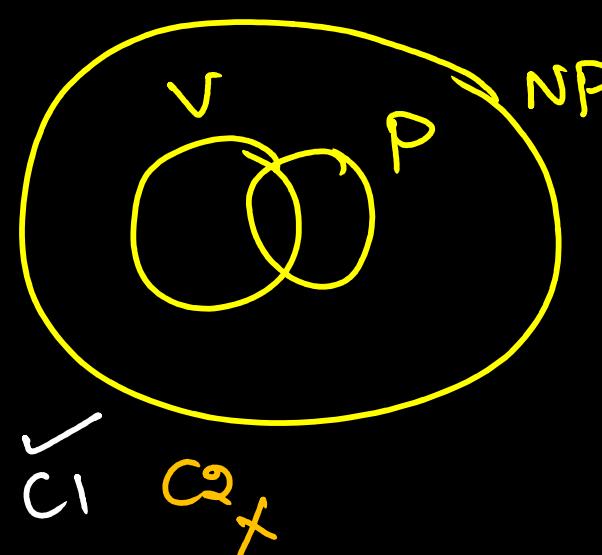


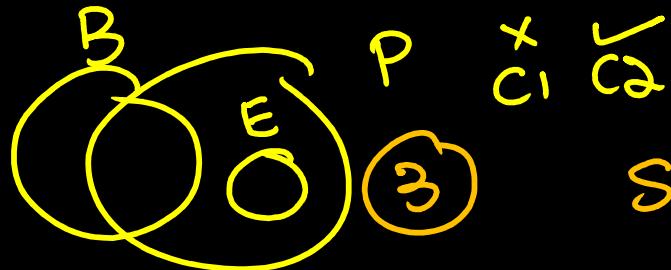
All NP are V \Rightarrow Some

2) Only conclusion II follows

4) Neither I nor II follows

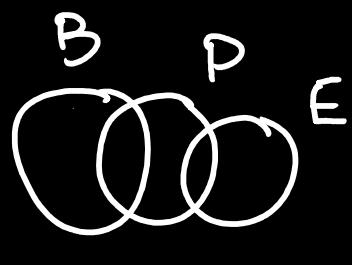
NP are
V





Stmt:

"either I or II
Some books are pens follows"

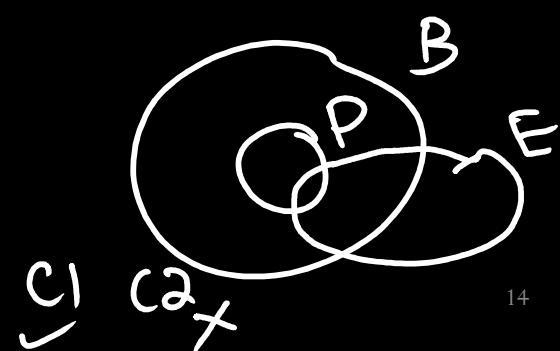
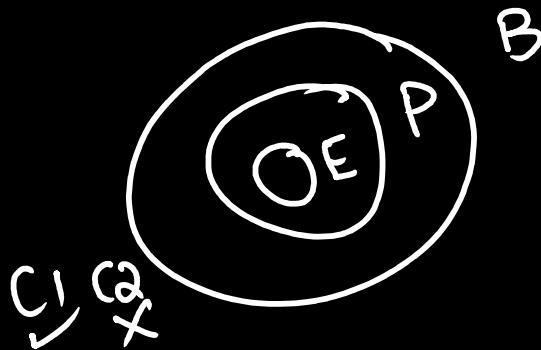
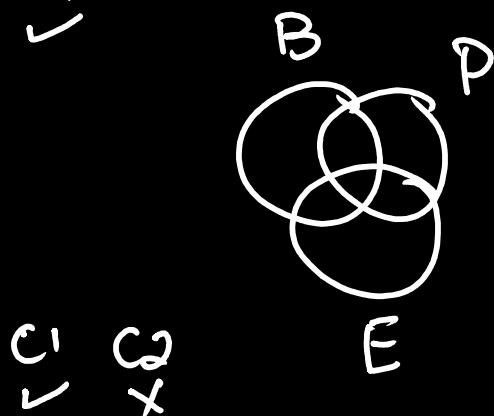


Some pens are erasers

Conclusion :

- I. Some books are erasers
- II. No book is eraser.

C1 C2
X ✓



4

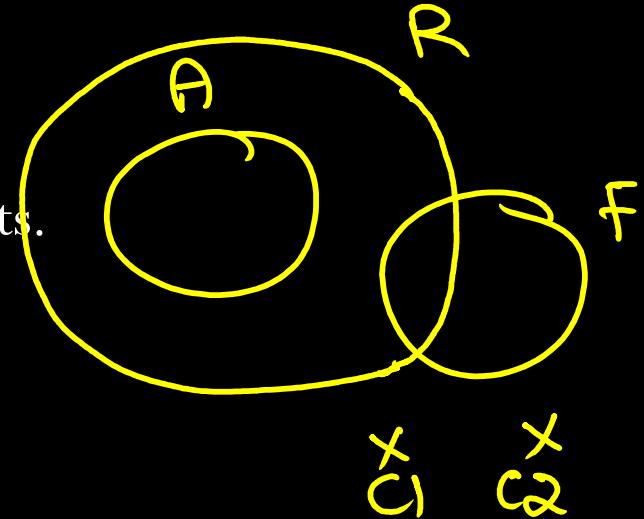
Statement 1 : All apples are red.

Statement 2 : Some red things are fruits.

Conclusion I: Some fruits are apples.

Conclusion II: All red things are fruits.

- 1) Neither I nor II follow
 3) Only conclusion II follows



- 2) Only conclusion I follows
 4) Either I or II follows

5*

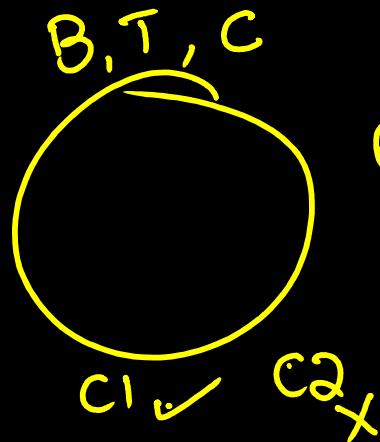
Statement 1: All babies are toys.

Statement 2: All children are toys.

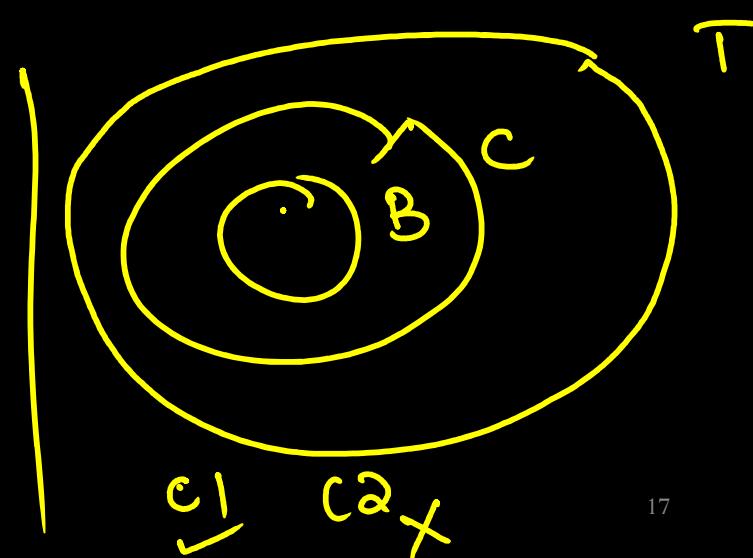
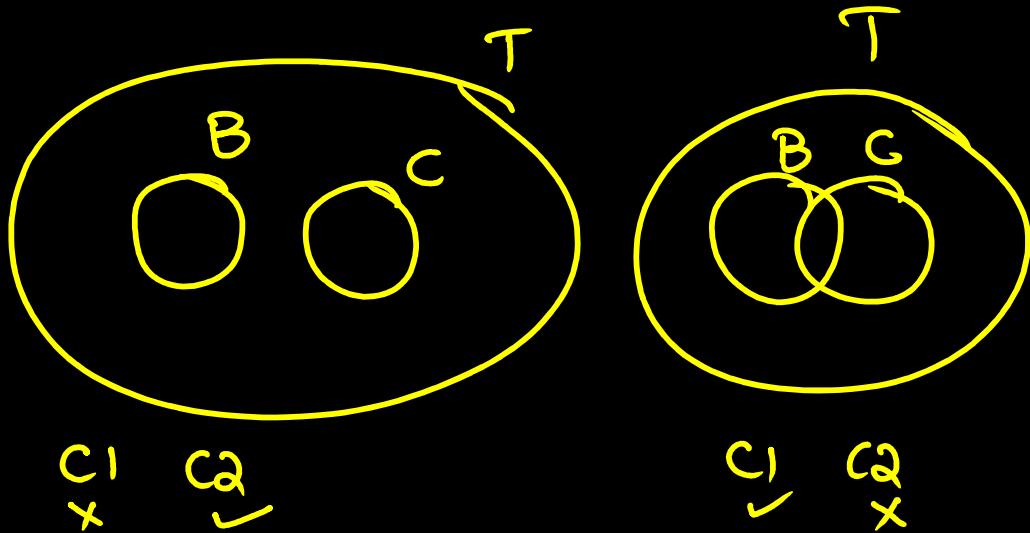
Conclusion I: Some Children are babies.

Conclusion II: No Child is a baby.

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Either I or II follows
- 4) Neither I nor II follows



All C are B
⇒ Some C are B



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

W

6

Statement 1: Some soaps are clean.

Statement 2: All clean objects are wet.

Conclusion I: Some clean objects are soaps.

Conclusion II: No clean object is a soap. Conclusion III: Some wet objects are soaps.

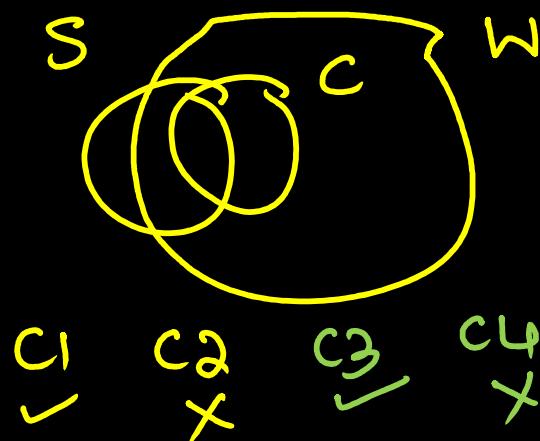
Conclusion IV: All wet objects are soaps.

Which one of the following options can be logically inferred? (GATE – 2022)

C₁ C₂ C₃
X X ✓

C₄
X

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



C₁ ✓ C₂ X C₃ ✓ C₄ X

Q. Given below are four statements.

Statement 1: All students are inquisitive.

1

Statement 2: Some students are inquisitive.

Statement 3: No student is inquisitive.

Statement 4: Some students are not inquisitive.

From the given four statements, find the two statements that CANNOT BE TRUE simultaneously, assuming that there is at least one student in the class (GATE – 2022)

MSQ

- (A) Statement 1 and Statement 3
- (C) Statement 2 and Statement 4

- (B) Statement 1 and Statement 2
- (D) Statement 3 and Statement 4

~~LET~~ Stmt 1 and Stmt 4

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.

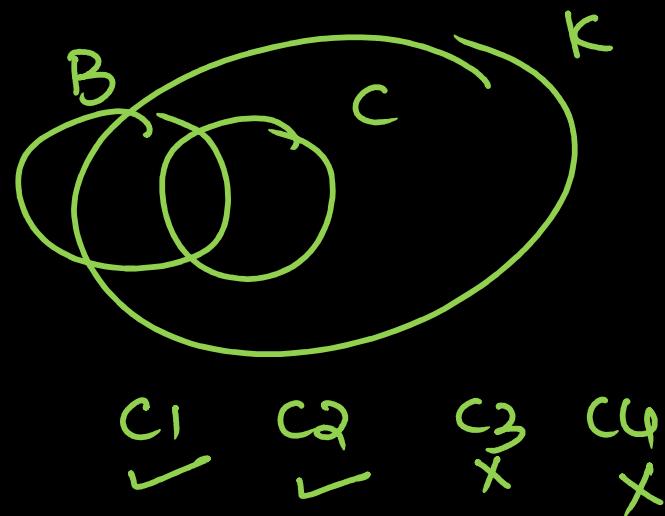
Conclusion II: Some knives are cups.

Conclusion III: All cups are bottles.

Conclusion IV: All knives are cups.

Which one of the following options can be logically inferred? (GATE – 2022)

- (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



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

 (GATE – 2022)

Statement 1: Some engineers are writers.

Statement 3: All actors are engineers.

Conclusion I: Some writers are engineers.

Conclusion III: No actor is a writer.

(A) Only conclusion I is correct

(B) Only conclusion II and conclusion III are correct

(C) Only conclusion I and conclusion III are correct

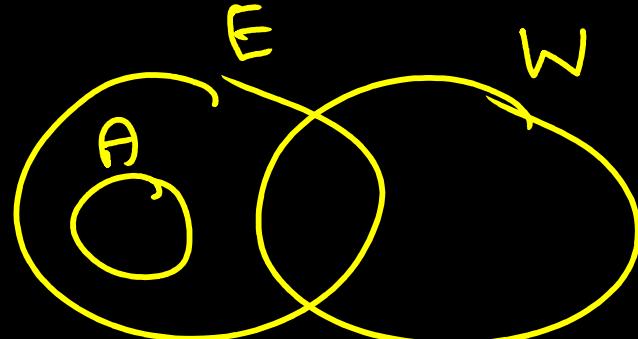
(D) Either conclusion III or conclusion IV is correct

 NO A is W

Statement 2: No writer is an actor.

Conclusion II: All engineers are actors.

Conclusion IV: Some actors are writers.



Given below are three conclusions drawn based on the following three statements.

16 Statement 1: All teachers are professors.

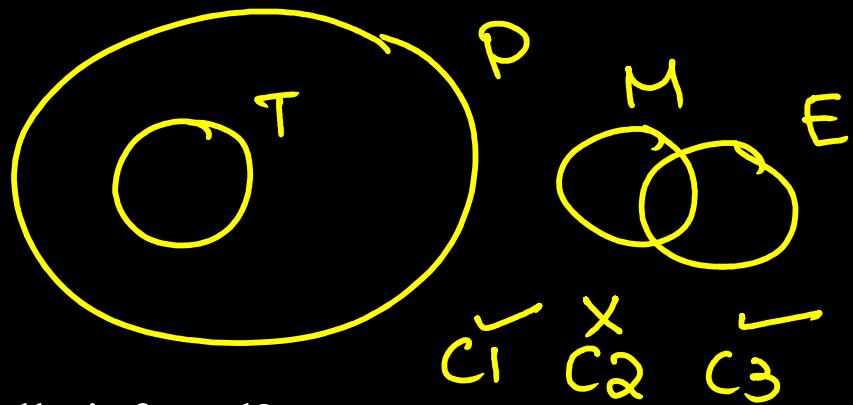
Statement 2: No professor is a male.

Statement 3: Some males are engineers.

Conclusion I: No engineer is a professor.

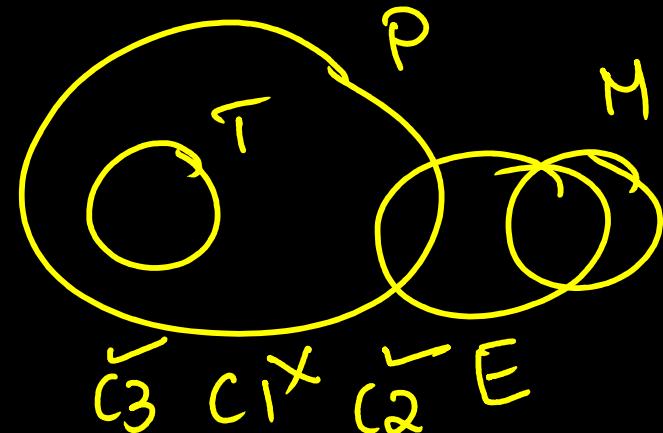
Conclusion II: Some engineers are professors.

Conclusion III: No male is a teacher.



Which one of the following options can be logically inferred? (GATE – 2022)

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



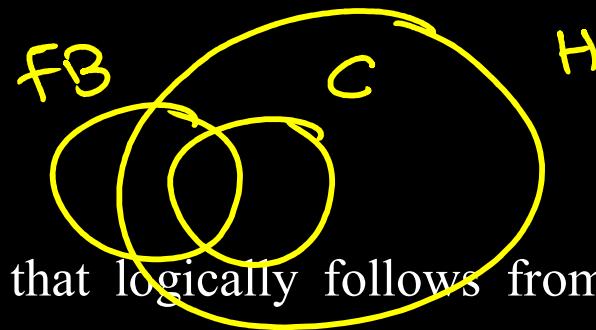
11

1. Some football players play cricket.
2. All cricket players play hockey.

Among the options given below, the statement that logically follows from the two statements 1 and 2 above is:

(GATE-21-CE SET2)

- (a) No football player plays hockey.
- (b) All hockey players play football.
- (c) All football players play hockey.
- (d) Some football players play hockey.



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

(12)

Statement 1: All bacteria are microorganisms.

Statement 2: All pathogens are microorganisms.

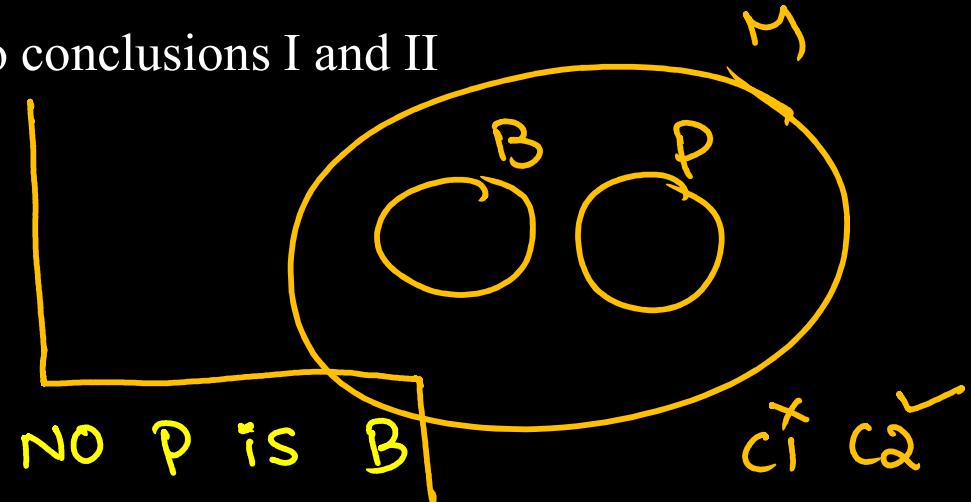
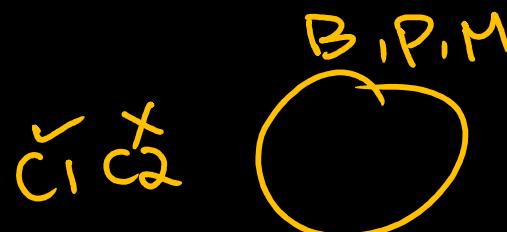
Conclusion I: Some pathogens are bacteria.

Conclusion II: All pathogens are not bacteria \Rightarrow NO P is B

Based on the above statements and conclusions, which one of the following options is logically CORRECT? (GATE-21)

- (a) Only conclusion I is correct
(c) Either conclusion I or II is correct

- (b) Only conclusion II is correct
(d) Neither conclusion I nor II is correct



13

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

Statement 1: All entrepreneurs are wealthy.

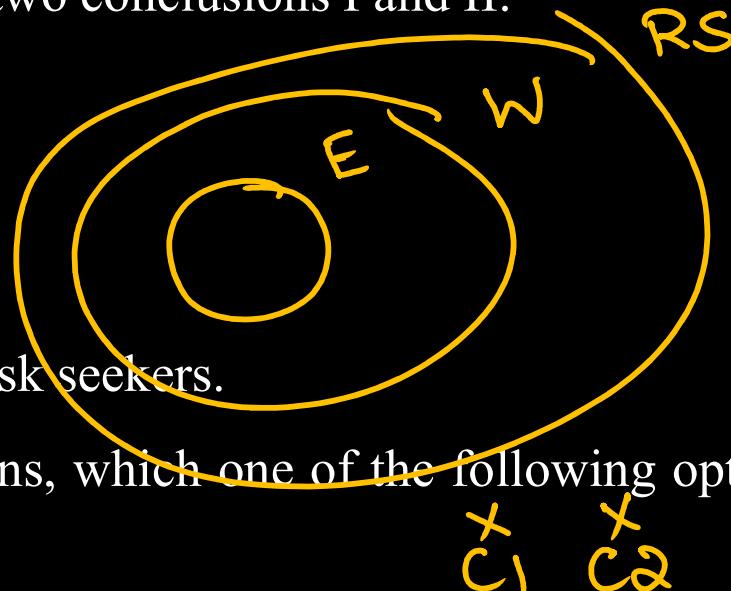
Statement 2: All wealthy are risk seekers.

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



~~C₁~~ ~~C₂~~

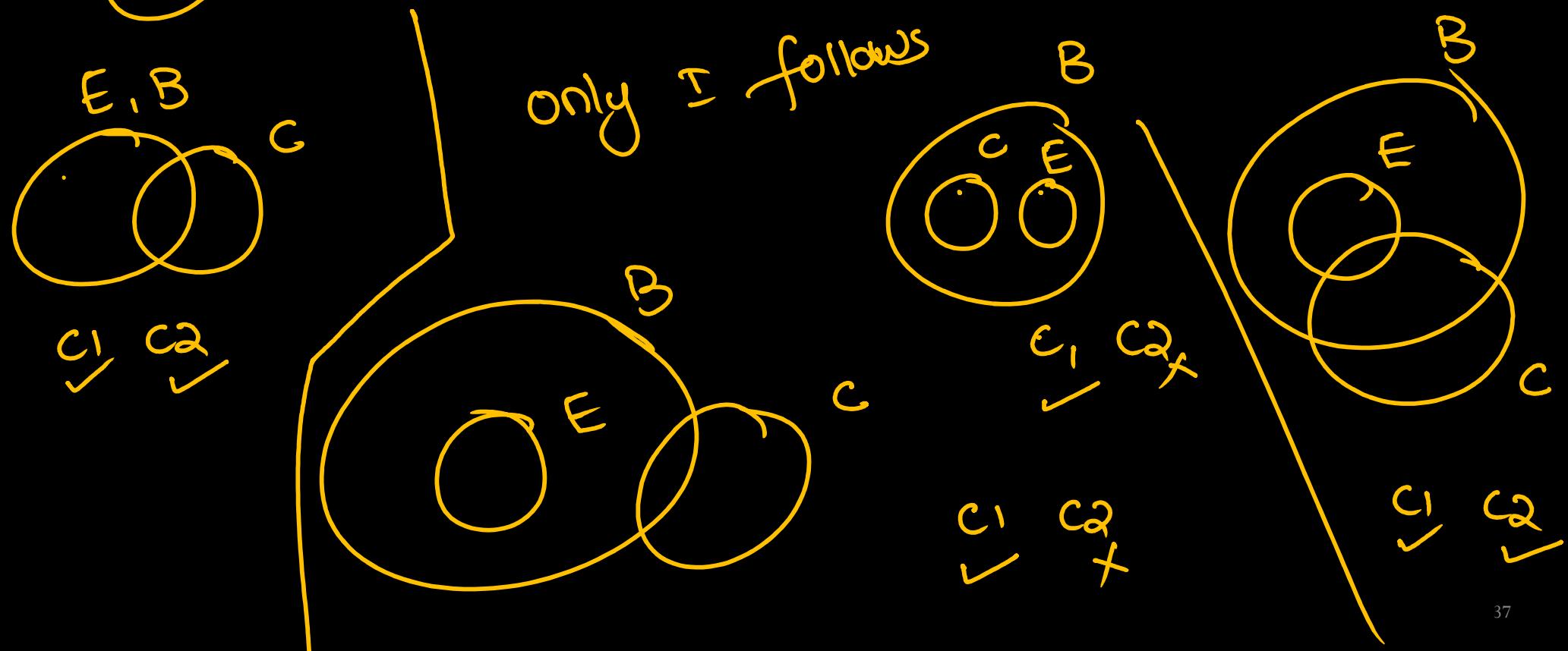
14

Statements: All elephants are birds.

Conclusions: I. Some cows are birds.

Some birds are cows.

~~II. Some elephants are cows.~~



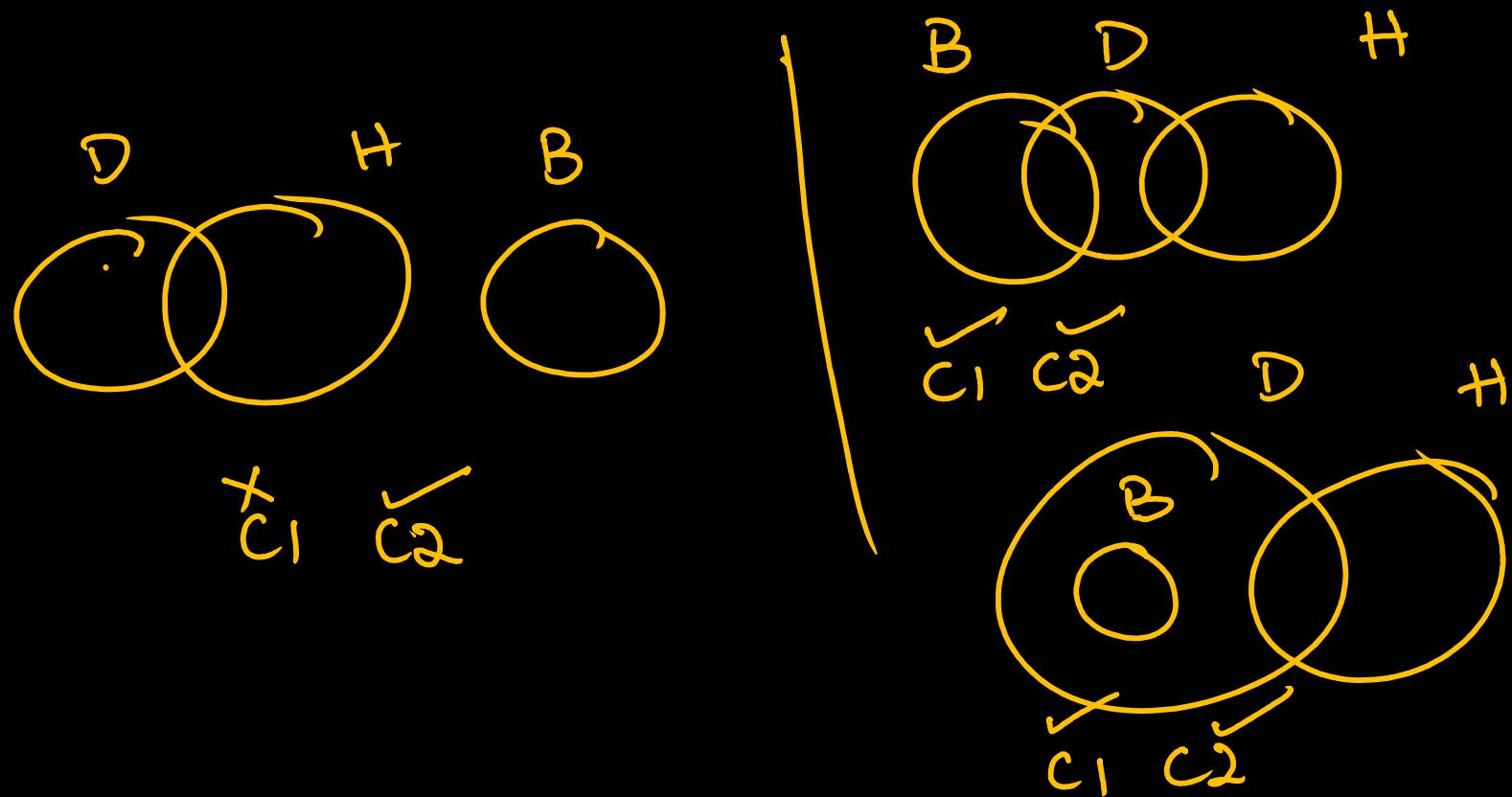
15

Statements: Some dogs are horses.

Conclusions: I. Some dogs are black.

only II follows
No horse is black.

✓ II. Some horses are dogs.



16

Statements: Some boys are girls.

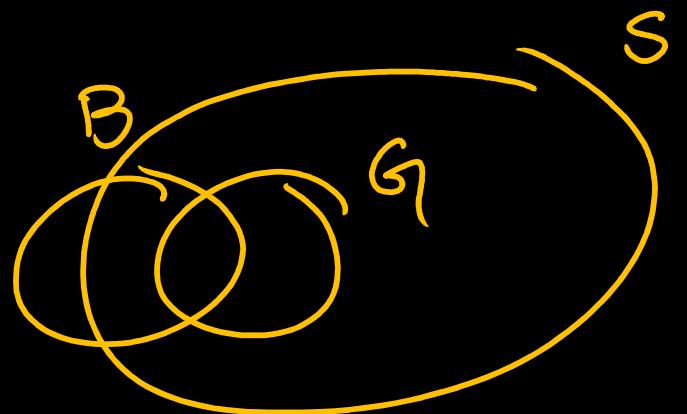
All girls are students.

Conclusions: I. Some boys are students.

II. Some students are boys.

III. Some students are girls. IV. All students are girls.

- a. I, II and III follow
- b. II, III and IV follow
- c. I, III and IV follow
- d. I, II and IV follow
- e. All follow



C₁ C₂ C₃ C₄



Statement I: Some chapters are physics

Conclusion I: All science is chapters

- 1) Only conclusion I follows
- ~~2) Only conclusion II follows~~
- 3) Both conclusions I and II follow
- 4) Neither conclusion I nor conclusion II follows

Practice

II: All science is physics

II: Some physics is science

18

Statement 1: Some apples are green.

Conclusion I: Some apples are healthy.

1) Only conclusion II follows

 3) Only conclusion I follows

Statement 2: All green things are healthy.

Conclusion II: No apples are healthy.

2) Either I or II follows

4) Neither I nor II follows

practice

19

Statement I: All sky is blue

Conclusion I: Some red is blue

Statement II: Some red is sky

Conclusion II: All red is blue

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Both conclusions I and II follow
- 4) Neither conclusion I nor conclusion II follows

practice

Statements: Some trees are sharks.

Conclusions: ~~I~~ All balloons are sharks.

III. Some trees are balloons.

A) Only I follows

C) Either I or III follows

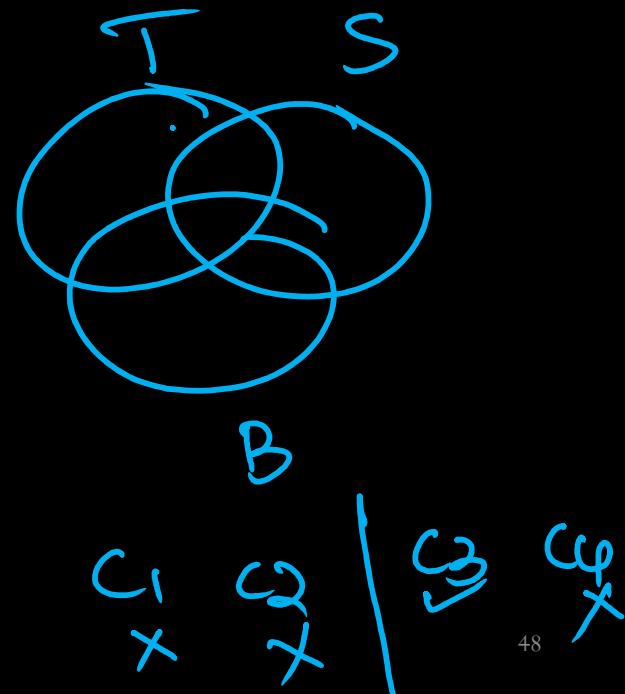
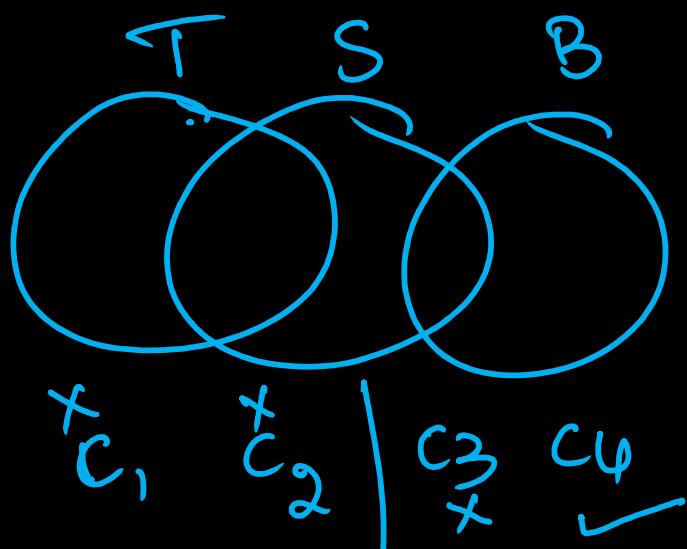
Some sharks are balloons.

~~II~~ All balloons are trees.

IV. No tree is a balloon.

B) Only II and III follow

~~D~~ Either III or IV follows



21

Statement I: All race is running

Statement III: Some race is athletics

Conclusion I: Some running is athletics

Conclusion III: Some running is race

1) Only conclusions I and II follow

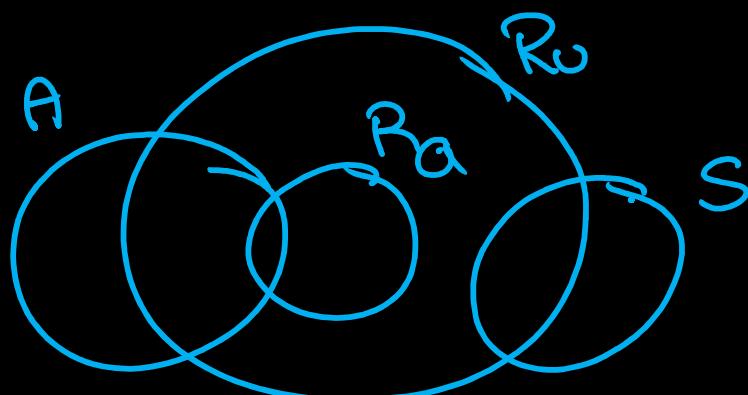
3) Only conclusions I and III follow

Statement II: Some running is sports

Conclusion II: All athletics is sports

2) Only conclusions II and III follow

4) All conclusions I, II and III follow



C₁ C₂ C₃

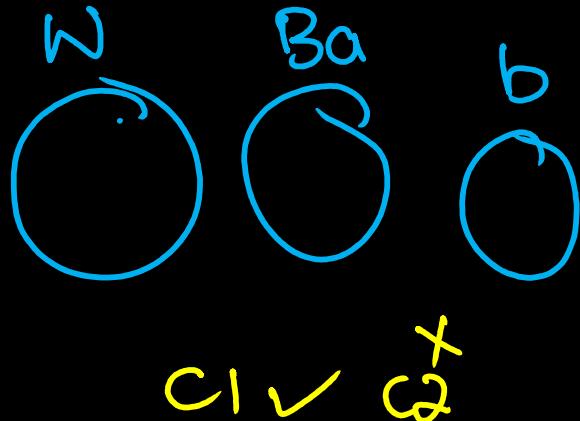
$\text{W} \cap \text{Ba} = \emptyset$

Statement 1 : No wood is bamboo. Statement 2 : No bamboo is b.

Conclusion I : No wood is b.

1) Only conclusion I follows

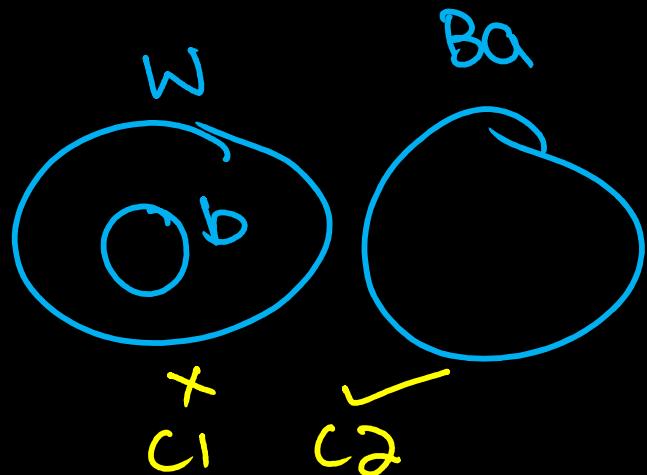
3) Neither I nor II follows



Conclusion II : All b things are wood.

2) Only conclusion II follows

4) Either I or II follows



23

practice

Statement I: All success is victory

Statement II: All luck is success

Statement III: Some hard work is luck

Conclusion I: Some success is hard work

Conclusion II: Some hard work is victory

Conclusion III: No victory is luck

- 1) Only conclusions I and II follow 2) Only conclusions II and III follow
3) Only conclusions I and III follow 4) All conclusions I, II and III follow

24

Statement I: All cloth is silk

Statement II: All silk is cotton

Conclusion I: Some cotton is cloth Conclusion II: All cloth is cotton

Practice

- 1) Only conclusion I follows
- 2) Only conclusion II follows
- 3) Both conclusions I and II follow
- 4) Neither conclusion I nor conclusion II follows

25

Statements: All thieves are men. All men are graduates.

No graduates are employed.

Conclusions: I. Some graduates are thieves.

III. Some men are thieves.

II. No employed are thieves.

IV. Some employed are men.

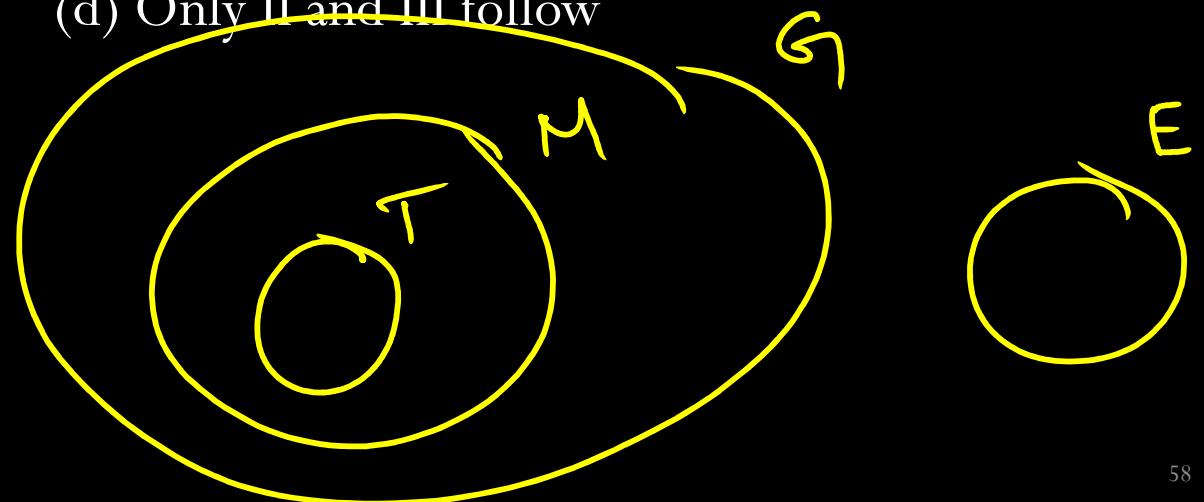
(a) I, II and III follow

(b) II, III and IV follow

(c) Only I and II follow

(d) Only II and III follow

(e) Only II and IV follow.



Statement I: All sofas are chairs

Statement II: Some chairs are lounges

Statement III: All lounges are recliners

Conclusion I: Some chairs are sofas

Conclusion II: Some sofas are lounges

Conclusion III Some recliners are chairs

- 1) Only conclusions I and II follow
- 2) Only conclusions II and III follow
- 3) Only conclusions I and III follow
- 4) All conclusions I, II and III follow

Statement I: All caterpillars are butterflies

Statement II: Some caterpillars are insects

Statement III: No butterflies are animals

Conclusion I: Some insects are butterflies

Conclusion II: All insects are animals

Conclusion III: Some animals are caterpillars

- 1) Only conclusion I follows 2) Only conclusion II follows
- 3) Only conclusions I and II follow 4) All conclusions I, II and III follow

Statement 1 : All bridges are bricks.

Statement 2 : No Stones are bridges.

Conclusion I : Some bricks are stones.

Conclusion II : Some stones are bridges.

- 1) Only conclusion I follows
- 3) Neither I nor II follows

- 2) Only conclusion II follows
- 4) Either I or II follows

Statements: All names are houses. No houses are foxes.

Conclusions:

- I. All names are foxes.
- II. No houses are names.

- (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 and
- (e) if both I and II follow.

Statements: All books are notes. Some notes are pencils. No pencils are papers.

Conclusions: I. Some notes are books. II. Some pencils are books.

III. Some books are papers. IV. No books are papers.

- (a) Only I follows
- (b) Only I and either III or IV follows
- (c) Either III or IV follows
- (d) Only I and III follow
- (e) None of these.

