## LOGICAL REASONING

## Type I Method

In this type of questions two statements $\cdot$ followed by two conclusions are given. You have to take the given statements .to be true even if they seem to be at variance from commonly known facts and then to decide which of the. given conclusions logically follows from the given two statements, disregarding commonly known facts.

Such questions should be solved as far as possible by Venn diagrams. On the basis of statements draw as many Venn diagrams as possible, then the conclusions should be considered in the light of those drawn Venn diagrams. The conclusions, which are confirmed by all Venn diagrams, are correct.

The following example will illustrate the idea clearly.
Example: Two statements given below are followed by two conclusions (I) and (II). Find out which of the two conclusions logically follows from the given statements. Give answer (a) if only conclusion (I) follows; (b) if only conclusion (II) follows; (c) if both (I) and (II) follow; (d) if either (I) or (II) follows and (e) if neither (I) nor (II) follows. Statements:
(i) No boy is thief.
(ii) Some men are thieves

Conclusions:
(I) Some men are not boys,
(II) Some thieves are not men,

Answer with Explanation (a): From the two statements at the most only following five Venn diagrams are possible.


Fig. I


Fig. II


Fig. III


Fig. IV


Thieves
Fig. V

From the above five figures it is clear, that some part of the circle of men is separate from the circle of boys, therefore, 'some men are not boys' is confirmed. But some part of the circle of thieves is separate from the/circle of men in some figures while it is not separate in other figures. Therefore, conclusion II is not confirmed.

## Examples

Directions (Q. 1-6): In each of the following questions there are two statements followed by two conclusions (I) and (II). You have to take these two statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions' logically follows from the given statements, disregarding the commonly known facts. If only conclusion (I) follows from the statement then mark A ; if only conclusion (II) follows then mark B; if both (I) and (II) follows then mark
if either (I) or (II) follow then mark D; and if neither (I) noy (II) follows, then mark E .

1. Statements:
(i) Mohan is a good sportsman.
(ii) Sportsman are generally healthy.
(I) All healthy persons are

Conclusions: sportsman.
(II) Mohan is healthy.
(b) B
(a) A
(d) D
(c) C
(e) E

Conclusions:
i) Some men are educated.
<ii) Educated persons prefer small families.
(I) All small families are educated.
(II) Some men prefer small families.
(b) B
(a) A (c) $\mathrm{C}(\mathrm{e})$
(d) D

E Statements:
3. Conclusions: (i) All men are chairs,
(ii) AH chairs are tables.
(c) C
(e) E
(I) All men are tables.
(II) Some chairs are men.

Statements:
(b) B
(d) D
4. (i) All boys are rivers.
(ii) Some rivers are girls.

Conclusions:
(I) Some girls are boys.
(II) Some boys are girls. (b) B
(a) A (c) C
(d) D
(a) E

Statements:
5.
(i) All birds are parrot.' (ii)

Shyam is a parrot
Conclusions:
(I) Shyam is a bird.
(II) All parrots are birds, (b)
(a) A (c) C (e)
B (d) D

E Statements:
6.
(i) Some bags are cigarettes, (ii)

Some non-bags are tables. (I)
Conclusions:
Some bags are tables.
(II) All bags are not cigarettes.

Directions (Q. 7-11): In the following questions, there are two statements followed by two conclusions (I) and (II). You have to take these two statements to be true even if they seem to be at variance from commonly known facts and then decide which one of the given conclusions logically follows from the given statements. Give answer
(a) if only conclusion (I) follows;
(b) if only conclusion (JI) follows:
(c) if either (I) or (II) follows;
(d) if neither (I) nor (II) follows;
(e) if both (I) and (II) follow.

Statements: (i) Some pots are rats. 7.
(ii) Ramesh is a man. Conclusions: (I) Ramesh is not a donkey.
(II) All men are not Ramesh.
14. Statements: (i) All boys are mothers
(ii) All mothers are fathers. Conclusions: (I) All mothers are boys
(II) All boys are fathers.
15. Statements: (i) Some aeroplanes are living
beings.
(ii) Some non-living beings are ghosts.

Conclusions: (I) Some aeroplanes are ghost,
(II) Some aeroplanes are not
ghosts.
16. Statements:(i) All pots are cups.
(ii) All cups are bowls. Conclusions:
(II) All cups are pots.

Directions (Q. 17-21): In each question below, are given two
(I) and (II). You have to take the two given statements to be true even if facts and then decide which of the given conclusions logically follows commonly known facts. Give answer
(a) , if only conclusion (I) follows; give answer (b) if only or (II) follows; give answer (d) if neither (I) nor (II) follows, and give
(i) Some chairs are rabbits.
(ii) Table is a chair.
(I) Some rabbits are chairs
(II) Table is not a rabbit.
(i) All peacocks are cookers.
(ii) Some cookers are plates.
(I) Some peacocks are plates. (II) Some plates are peacocks.
(i) All plants are flowers.
(ii) Some flowers are pens.
(I) All plants are pens.
(II) Some plants are pens.

All pots are bowls.
Statements: (i)
(ii

Conclusions: (I)
statements followed by two conclusions numbered they seem to be at variance from conmonly known from the two given statements, disregarding
conclusion (II) follows; givel answer (c) if either (I) answer (e) if both (I) and (II) follow.


## 21. Statements: <br> (i) All cars are guns!

(ii) No gun is rod.

Conclusions: (I) All guns are cars.
(II) No car is rod.

Directions (Q. 22-26): In each of the questions below, are given two statements followed by two conclusions numbered as (I) and (II). You have to take the given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows'from the two statements, disregarding commonly known, facts. Give answer
(a) if only conclusion (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 (i) Some apples are yellow,
(ii) Golden is an apple.
(I) Some apples are green.
(II) Golden is yellow.
(i) All spoons are plates.
(ii) All plates are trays.
(I) All spoons are trays.
(II) Some trays are spoons.
(i) All trucks fly.
(ii) Some scooters fly.
(I) All trucks are scooters,
(II) Some scooters do not fly.
(i) Some jackals are deers.
(ii) Some deers are tigers.
(I) Some jackals are tigers
(II) All deers are jackals.
(i) Some crows are dogs.
(ii) All dogs are faithful.
(I) All faithful animals are dogs. (II) Some crows are faithful.

Directions <Q. 27-32): In each of the questions below, are given two statements followed by two conclusion numbered (I) and (II). You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusion logically follows from the two statements, disregarding commonly known facts. Give answer (a) if only conclusion (I) follows; give answers (b) if only conclusion (II) follows; give answer (c) if either(I) or (II) follows; give answer (d) if neither (I) nor (II) follows and give answer

(i) Some birds are clouds.
(ii) Horse is a bird.
(I) Some clouds are birds.
(II) Horse is not a cloud.
(i) Some birds are clouds.
(ii) Horse is a bird.
(I) Horse is a cloud.
(II) Some clouds are not birds.
(i) All streets are watches.
(ii) All watches are eagles.
. (I) All streets are eagles.
(II) All watches are streets.
(i) All streets are watches.
(ii) All watches are eagles.
(I) All eagles are streets.
(II) All eagles are watches.
(i) All tables are ants.
(ii) Some ants are chairs.
(I) Some tables are chairs.
(II) Some chairs are tables.
(i) All tables are ants.
(ii) Some ants are chairs.
(I) All ants are tables.
(II) Some chairs are not ants. 33-37): In each question below,
are given two statements followed by two conclusions numbered (I) and (II). You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the two given statements, disregarding, commonly known facts. Give answer (a) if only conclusion (I) follows; give answer (b) if only conclusion (II) follows; give answer (c) if either (I) or (II) follows; give answer (d) if neither (I) nor (II) follows, and give answer (e) it both (I) and (II) follow.
33. Statements: (i) All students are boys.
(ii) No boy is dull.

Conclusions: (I) No student is dull.
(II) There are no girls in the class.
34. Statements: (i) All men are tables
(ii) All tables are graduates. Conclusions: (I) All tables are men.
(II) All men are graduates.
35. Statements: (i) Some cooks are lazy.
(ii) All boys are lazy. Conclusions: (I) Some boys are cooks.
(II) Some cooks are boys.

# 36. Statements: <br> (i) Most trains are gentlemen. 

(ii) Some gentlemen are tanks. Conclusions:
(I) Some tanks are gentlemen.

Conclusions: (I)
(II) Some trains are tanks.
(II)
37. Statements:
(i) AH holiday are.years.

Statements: (i)
(ii) Some years are stars. Conclusions: (I) All stars are holidays.
(II) All stars are years. Directions (Q. 38-42): In each of the questions, there are two statements

Conclusions: (I) followed by two conclusions. You have to take these statements to be true even if they seem to be at variance from
(II) commonly known facts and then decide which of the given conclusions logically follows from the statements. Give

Statements: (i) answer (a) if only conclusion (I) follows; (b) if conclusion (II) follows; (c) if either (I) or (II) follows, (d) if neither (I) nor (ii) (II) follows and (e) if both (I) and (II) follow.

Conclusions: •(I) 38. Statements; (i) All flowers are girls.
(II

Statements: (i)
(ii) Some girls are beautiful. Conclusions: (I) All flowers are beautiful.
(II) Some flowers are beautiful.
39. Statements: (i) All vehicles are cars.

Conclusions: (I)
(II
(ii) No car is costly. Conclusions:
(I) All cars ere
(II) No vehicle is costly.

Statements: '(i) 40. Statements: (i) Some i - ■ igces are sweel.

Conclusions: (I)
(ii) Some sweets are fruits. Conclusions: (I)

Some
mangoes are fruits.

(II) Some fruits are mango.

Statements: (i)
(ii) All boys are players. Conclusions: (I) All children are players,
(II) All boys are players.

Conclusions: (I)
42. Statements:
(i) All cows are Rambha.
(ii) Some buffaloes are Rambha. Conclusions: (I) All Rambhas are not cows.
(II) Some Rambhas are not buffaloes.

Directions (Q. 43-47): In each of the questions, there are two statementsfollowed by two conclusions. You have to take the two given statements to be true even if they seem to be at variance with commonly known facts and then decide which of the given conclusions logically follows from the two statements disregarding commonly known facts. Give answer
(a) if only conclusions (I) follows,
(b) if only conclusions (II) follows
(c) if either (I) or (II) follows
(d) if neither (I) nor (II) follows
(e) if both (I) and (II) follow.
43. Statements: (i) All coats are bags.
(il) Some bags are toys. Conclusions:
(I) Some bags are coats.
(i) Some kites are horses.
(ii) All horses are dogs. Conclusions: (I) All dogs are horses.
(II) Some dogs are horses.
45. Statements: (i) All books are chairs.
(ii) All chairs are pens. Conclusions: (I) All books are pens.
(II) Some pens are books.
46. Statements: (i) All poets are readers.
(ii) No reader is wise. Conclusions: (I) No poet is wise.
(II) All readers are poets.
47. Statements: (i) Some caps are tables,
(ii) Some tables are chairs. Conclusions: (I) Some caps are chairs.
(II) Some chairs are caps. Directions (Q. 48-52): In each question below, are given two statements followed by two conclusions (I) and (II). You have to take the given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the two statements, disregarding commonly known facts.
Give answer (a) if only conclusion (I) follows; give answer (b) if only (II) follows; give answer
(c) if either (I) or (II) follows; give answer (d) if neither (I) nor (II) follows; and give answer (e) if both (I) and (II) folLow.
48. Statements: (i) Some boys are clouds.
(ii) Gopal is a boy.

C\&nclusions: (I) Some clouds are boy.
(II) Some boys are not clouds.
49. Statements: (i) All streets are aircraft.
(ii) All aircraft an parrots. Conclusions: (I) All parrots are streets,
(II) All parrots are aircraft.
50. Statements: (i) All chairs are apples.
(ii) Son e apples are tables Conclusions: (I) AH apples are chairs.
(II) Some tables are not apples.
51. Statements: (i) Some boys are clouds.
(ii) Gopal is a boy.

Conclusions: (I) Gopal is a cloud.
(II) Some clouds are not boys.
52. Statements: (i) All streets are aircraft.
(ii) All aircraft are parrots. Conclusions: (I) All streets are parrots.
(II) All aircraft are streets. Directions (Q, 53-57): In each of the questions, there are two statements followed by two conclusions. You have to take these given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given stataments. Give answer
(a) if only conclusion (I) follows;
(b) if only conclusion (II) follows;
(c) if both (I) and (II) follow;
(d) if either (I) or (II) follows;
(e) if neither (I) nor (II) follows.
53. Statements: (i) Some essayists are poets.
$(\text { (ii) })^{2}$ All poets are dramatists. Conclusions: (I) Some poets arc essayists.
(II) Some essayists are dramatists.
(ii) All rotten are in bad basket. Conclusions: (I' Ail the rotten are not eggs.
(II, A1 eggs are in bad basket.

(i) All men are prisoners.
(ii) No prisoners are educated. Conclusions: (I) All prisoners are educated.
(II) No men are educated.
(i) Some soldiers are famous.
(ii) Some soldiers are intelligent. Conclusions: (I) Some soldiers are either famous or intelligent.
(II) Some soldiers are neither famous nor intelligent.
57. Statements: (i) Some quicks are fierces.
(ii) All fierces are angry. Conclusions: (I) Some quicks are angry.
(II) Some fierces are quicks. Directions (Q. 58-62): In each of the questions, there are two statements followed by two conclusions numbered (I) and (II). You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions
logically follows from the two given statements. Give answer
(a) if only conclusion (I) follows;
(b) if only conclusion (II) follows;
(c) if both (I) and (II) follow;
(d) if either (I) or (II) follows,
(e) if neither (I) nor (II) follows.
58. Statements; (i) Some authors are painters.
(ii) All painters are honest.

Conclusions: (I) All honest persons are painters.
(II) Some authors are honest.
59. Statements:
(i) All tables are horses.
(ii) All horses are rivers. Conclusions:
(I) All tables are rivers.
(II) Some rivers are tables.
60. Statements:
(i) All poets are authors.
(ii) All singers are authors.

Conclusions: (I) All singers are poets.
(II) Some authors are not singers.
61. Statements: (i) All cats are dogs.
(ii) Some dogs are black.

Conclusions:
(I) Some cats are black.
(II) Black dogs are not cats.
62. Statements: (i) Some crows are cows.
-
(ii) Some cows are cats.

Conclusions:
(I) Some crows are cats.
(II) All crows are cats. Directions (Q. 63-67): In each questions below, are give two statements followed by two conclusions numbered (I) and (II). You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the two given statements, disregarding commonly known facts. Give answer (a) if only conclusion (I) follows; give answer (b) if only conclusion (II) follows; give answer (c) if either (I) or (II) follows; give answer (d) if neither (I) nor (II) follows; and give answer (o) if both (I) and (II) follow.
63. Statements: (i) All pencils are bricks.
(ii) All bricks are bottles.

Conclusions: (I) Some bottles are pencils.
(II) Some bottles are bricks.
64. Statements:
(i) All pencils are bricks.
(ii) Aft bricks aye bottles.

Conclusions: (I) All pencils are bottles.
(II) All bricks are pencils.
then decide which of the given conclusions logically follows from the two statements, disregarding commonly known facts. Give answer (a) if only conclusion (I) follows; give answer (b) if only conclusion (II) follows; give answers (c) if either
(I) or (II) follows; give answer (d) if neither (I) nor
(II) follows and give answers (e) if both (I) and (II) follow.
73. Statements: (i) All mirrors are eggs.
(ii) All eggs are bats.
(I) AH mirrors are bats.
(II) AH bats are mirrors.
(i) Statements: C Some ants are trees,
(ii)
(I)

## Conclusions:

(ii All actors are trees.
a) All ants are trees.
(II Some trees are actors.
Statements: (i) (i) All lemons are swans.
(ii (ii) No swan is carpet.
Conclusions: (I) No lemons are carpet,
(II All swans are lemons.
Statements: (i) All potatoes are birds.
Conclusions: (I) All books are potatoes.
All birds are books.
All watches are handles.
Statements: (D) All handles are bricks.
Conclusions: (I) All handles are watches.
(II All watches are bricks. Directions (Q. 7.8-80): In each of the questions, there are two statements followed by two
Statements: (I) conclusions. You have to take the given statements to be true evenif they seem to be at variance from commonly known and then decide which of the two given conclusions logically follows from the two given statements. Give answer (a) if
Conclusions: ${ }^{\prime}$ (I) conclusion (I) follows; (b) if only conclusion (II) follows; (c) if both (I) and (II) follow; (d) if either (I)

> (e) if neither (I) nor (II) follows.
> (i) All passengers are men.
(ii) All men are graduates.
(I) All men are passengers.
(II) All passengers are graduates.
(i) Some dogs bite.
(ii) All dogs bark.
(I) Those dogs 'who do not bark, also bite.
(II) Those dogs who do not bark, not necessarily bite.
80. Statements:
(i) Some men are wolves.
(ii) Some wolves are hangry. Conclusions: (I) All the men are hungry wolves.
(II) All those who are hungry, are wolves
or (II) follows and
(e)

78. Statements:

Conclusions:

Conclusions: (I)
(ii) All books are rods. Conclusions:
(II) Some pens are rods.
(III) Some books are pens.
(IV) All rods are pens.
(a) Only (II) and (III) follow
(b) All follow
(c) None follows
(d) Only(I) and (IV) follow
(e) Only (II), (III) and (IV) follow
82. Statements:
(i) All cats are parrots.
(ii) No parrot is green. Conclusions: (I) No cat is green.
(II) Ail parrots are cats.
(III) Some parrots are cats.
(IV) Some cats are green.
(a) Only (I) follows
(b) All follow
(c) Only (I) and (III) follow
(d) Only (II) and (IV) follow
(e) None follows
83. Statements: (i) All windows are carpets.
(ii) Some carpets are rats. Conclusions:
(I)
All rats are carpets.
(II) All carpets are windows.
(III) All windows are rats.
(IV) A11 rats are windows,
(a) Only (II), (III) and (IV) follow
(b) Only (I), (II) and (IV) follow
(c) All follow
(d) Only (I), (II) and (III) follow
(e) None follows

## Answers with Explanation

| 1. (b) | 2. (b) | 3. (c) | 4 (e) |
| ---: | :---: | :---: | :---: |
| 5. (e) | 6. (e) | 7. (b) | 8. (e) |
| 9. (b) | 10. (e) |  |  |
| 11. (a) |  |  |  |


| 32. | (d) | 33. (a) | 34. (b) | 35. (d) |
| :--- | :--- | :--- | :--- | :--- |
| 36. | (d) | $37 .<d)$ | 38. (d) | 39. <b) |
| 40. | (d) | 41. (a) | 42. (d) | $43 .<d)$ |
| 44. | (b) |  |  |  |
| 45. | (e) |  |  |  |



| 12. | (c) | 13. | (a) | 14. | (b) | 15. $<$ c) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16. | (a) | 17. | (d) | 15. (d) | 19.fd) |  |
| 20. | <b) | 21. (b) | 22. (d) |  |  |  |

23. (a)

24. (b) Some scooters fly it means some Scooters do not fly.
25. (d)
26. (e)

27. (a)
28. (d)
29. (d)
30. (d)
31. (d)
32. (a)
33. (b) According to the statement
(i), some essayists are poets, hence some essayist are not poets, therefore, conclusion \{I) is false. According to the statements (i) and (iij conclusion (II) is correct.
(b)
34. (b)
35. (d)
36. (a)
37. <b)
38. (c)
39. 



60.

62. (e)
63. (e)


In this type of questions one statement followed by two conclusions is given. The candidate has to assume everything in the statement to be true even if it seems to be at vriance from the commonly known facts and then decide which of the given conclusions logically follows from the given statements. The example given below will illustrate the idea clear.

## Example:

Statement: If you are a good artist, then we have definitely a job for you.
Conclusions: (I) You are a good artist.
(II) We are in need of a good artist.
64. (a)
65. (d)

66. (d) ${ }^{68 .(e)}{ }_{67 .}$ (b)
70. (a) 72. 71. (e)
(b)
73. (a)
74. (d)
75. (a)

82. (c)
83. (e)

