23 SYLLOGISM

The method of Venn diagrams

Step I: Draw standard representations for both the statements separately as given below:

Note: By standard representation we represent the way which is the most common and usually sufficient to denote the statement.

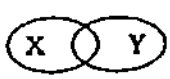
For eg.- "Some X are Y" can be represented as:

But, for all practical purposes the first of these representation suffices. And this is the standard representation for an I-type proposition.

Types of Statements:-

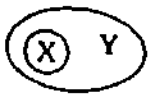
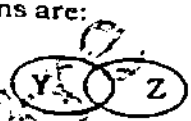
1. All books are pens - **A type** (Means all +ve)
2. No books are pens - **E type** (Means all -ve)
3. Some books are pens - **I type** (Some +ve)
4. Some books are not pens - **O type** (Some -ve)

Given below is a table of standard representation.

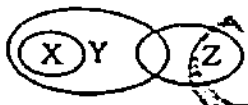
Statement of type	Standard representation
A (All X are Y)	
E (No X are Y)	
I (Some X are Y)	
O (Some X are not Y)	

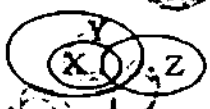
Step II: Now try to combine the representations (as drawn in step I) in as many ways as possible.

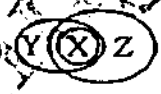
Note: When we say as many ways as possible, we mean that you should combine the representations in all possible ways. For example, if statement (1) is "All X are Y" and statement (2) is "Some Y are Z" then the standard representations are:

1.  and 2. 

They can be combined in more than one ways. The possible ways are:

Fig. (i) 

or, Fig. (ii) 

or, Fig. (iii) 

Therefore, step II asks you to draw all possible combinations.

Step III: Finally, make interpretations of the combined figures (obtained from step II). Any given conclusion will be true if it is supported by all the combined figures and no combined figure contradicts it.

For eg. In the illustration to step II, we see that a conclusion that "Some X are Z" is supported by Fig. (ii) but not by fig. (i). Since it is not supported by all the figures it does not follow. Minimum encroachment technique will make your work easier.

Choose one from the above three diagrams (a, b and c) the one which has least encroachment. A careful survey of the figures reveal that figure (i) has minimum encroachment. In figure (i) the whole part of X is inside Y. Some part of Y is in Z but we do not have clear information about the relation between X and Z.

Figure (i) is sufficient to consider the conclusions.

Ex. 1: **Statements:**

All cats are bats.

All bats are tables.

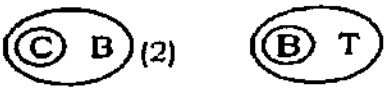
Conclusions:

(I) Some tables are bats.

(II) Some tables are cats.

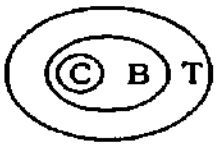
Sol.

Step I: Looking at table, we draw the standard representations for the two statements:



Let B = bats, C = cats, T = tables.

Step II: Now combine figure (1) and figure (2) in all possible ways. Figure (1) and figure (2) can be combined in only one way. That is:



Step III: We see that both conclusions: 'Some tables are bats' and 'Some tables are cats' are supported by the combined figure. Hence, both conclusions follow.

Ex. 2: Statements:

Some tables are watches.

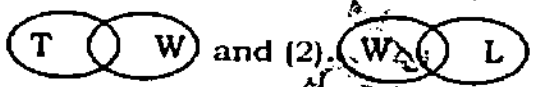
Some watches are lamps.

Conclusions:

(I) Some tables are lamps.

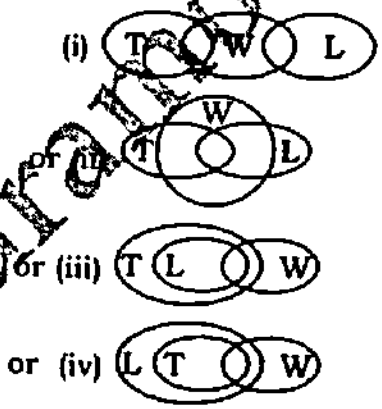
(II) Some tables are not lamps.

Sol. Step I:



Let T = tables, W = watches, L = lamps

Step II: Combining figure (1) and figure (2) in all possible ways.



Out of the four figures, figure (i) is the minimum encroachment figure.

According to figure (i), some part of table is watch. Some part of watch is lamp but we do not have any information about the relation between table and lamp.

Now see the conclusions given.

Since we do not have any information about the relation between the table and lamp. So we cannot decide whether the two conclusions are right or wrong.

We must pay attention that both the conclusions cannot be wrong simultaneously.

So one out of two conclusions must be definitely correct.

Note: Prepare your solution based on minimum encroachment technique for the examples given below.

Ex. 3: Statements:

No tables are watches.

Some watches are lamps.

Conclusions:

(I) Some lamps are not tables.

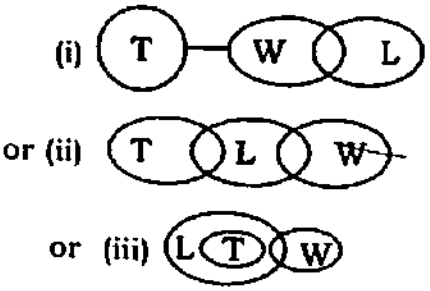
(II) Some lamps are tables.

Sol.

Step I: We draw standard representation as drawn in the table or step I.

Let T = tables, W = watches, L = lamps

Step II : Now we combine the two figures in all possible ways. They are:



Step III: We see that the conclusion 'Some lamps are not tables' is always supported by all the possible combinations. Hence the conclusion (I) is true.

Ex. 4: Statements:

All rivers are mountains.

Some rivers are deserts.

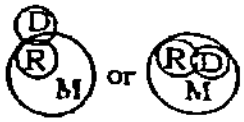
Conclusions:

(I) Some mountains are deserts.

(II) Some deserts are not mountains.

Sol. **River = R, Mountain = M, Desert = D**

Step I:



Step II: Combine

Step III: When all rivers are mountains and some rivers are deserts, then some mountains will be deserts. Therefore, only conclusion (I) is correct.

Ex. 5: **Statements:**

All men are horses.

All horses are elephants.

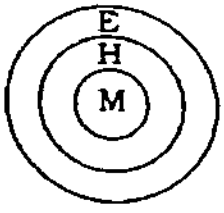
Conclusions:

(I) All men are elephant.

(II) All elephant are men.

Elephants = E, Horses = H, Men = M

Sol. Step I & II



Step III When all men are horses and all horses are elephants then naturally all men are elephants, but all elephants need not be men. Therefore only conclusion (I) is correct.

Ex 6: **Statements:**

All talented persons are trustworthy.

Some trustworthy are musicians.

Conclusions:

(I) All talented persons are musicians.

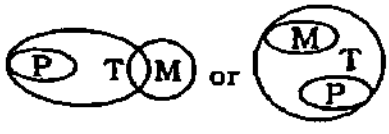
(II) Some musicians are not talented persons.

Talented person = P

Trustworthy = T

Musicians = M

Sol. Step I & II



Step III According to venn diagram, conclusion (I) and (II) both do not follow.

Ex. 7: **Statements:**

Some engineers are teachers.

Some engineers are efficient.

Conclusions:

(I) Some teachers are efficient.

(II) All efficient are engineers.

Efficient = E, Engineers = G, Teacher = T

Sol. Step I

Step II

Step III When some engineers are teachers, then some teachers are engineers. Also, when some engineers are efficient, then some efficient are engineers. Therefore, both the conclusions are do not follow.

Ex. 8: **Statements:**

Some foods are sweet.

Some foods are sour.

Conclusions:

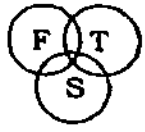
(I) All foods are either sweet or sour.

(II) Some sweet are sour.

Sour = S, Food = F, Sweet = T

Sol. Step I

Step II



Step III When some foods are sweet and some foods are sour, then all foods are not necessarily sweet or sour and what is sweet need not be sour. Therefore, neither of the conclusion is correct.

Ex. 9: **Statements:**

All cups are goats

All goats are tins

Conclusions:

(I) All goats are cups

(II) All tins are goats

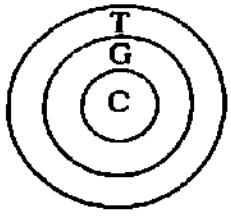
(III) No cups are tins

(IV) No tins are cups

(1) Only conclusions III and IV follow
(2) Only conclusion I and II follow
(3) Only conclusions I, II and III follow
(4) All conclusions are correct
(5) None of these

Cup = C, Goat = G, Tin = T

Sol. Step I & II



Step III When all cups are goats, then some goats must be cups. when all goats are tins, then some tins can be goats. When all cups are goats and all goats are tins, then naturally all cups are tins and some tins must be cups. Therefore, all the conclusions are do not follow. **Ans (5)**

Ex 10: **Statements:**

All birds are peacocks.

All peacocks are farmers.

Conclusions:

(I) Some farmers are birds.

(II) Some peacocks are birds.

(1) Only conclusions I and II follows

(2) Only conclusions II and III follow

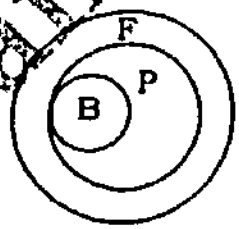
(3) Data is insufficient

(4) All conclusions are correct

(5) None of the above

Birds = B, Peacock = P, Farmer = F

Sol. Step I & II



Step III When all birds are peacocks, which are all farmers, then all birds are farmers. When all birds are peacocks, then some peacocks must be birds and when all birds are farmers, then some farmers must be birds. Therefore, all conclusions are correct.

Ans. (4)

Ex.11: **Statements:**

No chair is tree.

All trees are trains.

Conclusions:

(I) No chair is train.

(II) No trains is chair.

(III) Some trains are trees.

(IV) No train is tree.

(1) Only IV follows

(2) Only III and IV follow

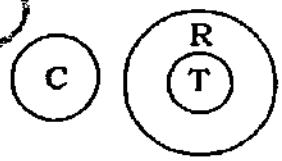
(3) Only I and II follow

(4) Only II and III follow

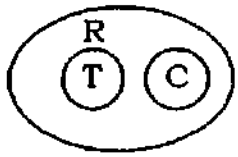
(5) None of these

Chair = C, Tree = T, Train = R

Sol. Step I



Step II



Step III When all tree are trains then some trains must be trees. Also from the given two statements we can conclude that some trains are not chair. Hence, no chair is train and vice versa cannot be established with certainty. Therefore, only conclusion III is correct. **Ans. (5)**

Ex.12: **Statement:**

Some bags are pockets.

No pocket is a pouch.

Conclusions:

(I) No bag is a pouch.

(II) Some bags are not pouches.

(III) Some pockets are bags.

(IV) No pocket is a bag.

(1) Only either I or IV follow

(2) Only II and III follow

(3) Only I and III follow

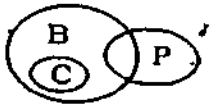
(4) All follow

(5) None of follows

Bag = B, Pocket = P, Pouch = C

Sol. Step I

Step II



Step III Some bags are pockets, so some pockets must be bags. Also, when 'Some bags are pockets' and 'no packets are pouches' then we can conclude that some bags (which are pockets) are not pouches. Therefore, only conclusions II and III are correct.

Ans. (2)

Ex. 13: Statements:

All soil are diamonds.
No gold is a diamond.
Some golds are foils.

Conclusions:

(I) No soil is a diamond.
(II) Some foils are not diamonds.
(III) Some soils are golds.
(IV) Some foils are soil.
(1) Only I and II follow
(2) Only II follows
(3) Only I and III follow
(4) Only I, III and IV follow
(5) None of these

Soil = S, Diamond = D, Gold = G, Foil = F

Sol. Step I & II

or

Step III Only II follows

Ans. (2)

Ex. 14: Statements:

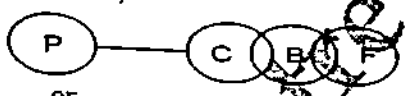
Some bells are flowers.
Some cards are bells.
No cards are papers..

Conclusions:

(I) Some bells are papers.
(II) Some papers are not bells.
(III) Some flowers are cards.
(IV) Some bells are not papers.
(1) Only III and IV follow
(2) Only I and II follow
(3) Only II follows
(4) Only IV follows
(5) Either I or IV and II follow

Card = C, Bell = B, Flower = F, Paper = P

Sol. Step I & II



or

Step III Only IV follows

Ans. (4)

Ex. 15: Statements:

Some diaries are pockets.
All pockets are digitals.
Some digitals are purses.

Conclusions:

(I) Some pockets are digitals.
(II) Some diaries are digitals.
(III) Some diaries are purses.
(iv) Some diaries are not purses.
(1) Only I, II and III follow
(2) Only I, II and IV follow
(3) Only II and III follow
(4) Only II and either III are IV follow
(5) Only I, II and either III or IV follow

Diary = D, Pocket = P, Purses = R, Digital = I

Sol. Step I

Step II

Step III Here III and IV are complementary pairs and statement I and II follows.

Ans. (5)

Ex. 16: Statements:

Some pillows are beds.
Some leaders are pillows.
All ministers are beds.

Conclusions:

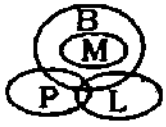
(I) Some pillows are not beds.
(II) No pillow is a minister.
(III) Some leaders are not pillows.
(IV) Some ministers are pillows.

(1) Either I or IV follow
(2) Either II or IV follow
(3) Either I or IV and II follow
(4) Only III follow
(5) None of these

Leader = L, Pillow = P, Bed = B, Minister = M

Sol. Step I & II

or



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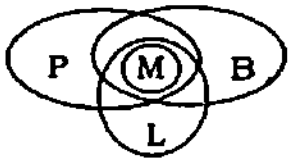


Step III Here II and IV are complementary pair. So either II or IV follows.

Ans. (2)

Ex. 17: Statement:

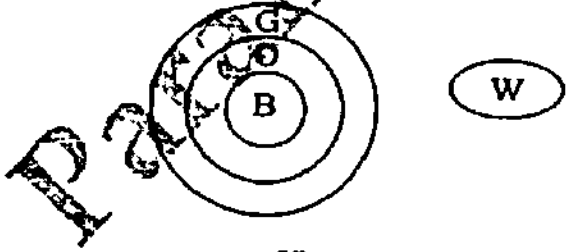
No water is black.
All goods are green
All blacks are good.

Conclusions:

(I) Some greens are not water.
(II) Some greens are black.
(III) Some blacks are water.
(IV) Some blacks are green.
(1) Only II and IV follow
(2) Only I, II and IV follow
(3) Either I or III follow
(4) Only II, III and IV follow
(5) None of these

Black = B, Goods = G, Green = G, Water = W

Sol. Step I & II



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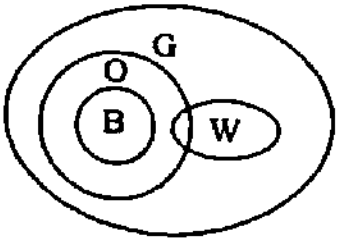


Step III Only I, II and IV follow.

Ans. (2)

Rule of complementary pair

If out of all two conclusions of the statement are doubtful and out of these two conclusions one is positive and the other negative and the terms (subject and predicate) of both the conclusions are same, then both the conclusion make the conclusions of 'either' case. See the examples given below:

Ex. 18: Statement:

1. All books are papers.
2. Some papers are pencils.

Conclusions:

(I) All books are pencil (-)
(II) Some books are not pencil (-)

If both conclusions are doubtful and conclusion (I) is positive and conclusion (II) negative and the terms of both the conclusions i.e. 'books' and 'pencils' are same then conclusion (I) and (II) form case of 'either'

Ex. 19: Statements:

Some rods are trees.
Some trees are flowers.

Conclusions:

(I) Some rods are flowers. (-)
(II) Some flowers are trees. (✓)
(III) Some rods are not flowers. (-)
(IV) Some trees are rods. (✓)

Sol. Both conclusions I and III are doubtful and conclusion (I) is positive and conclusion (III) negative and the terms of both the conclusions i.e. 'rods' and 'flowers' are same then conclusion (I) and (II) form case of 'either'. So answer will be:- only either (I) or (III) and (II) & (IV) follow.

Ex. 20: Statements:

Some toys are pens.
Some pens are papers.
Some papers are black.

Conclusions:

(I) All toys are black. (-)
(II) Some pens are not black. (-)
(III) No toy is black (-)
(IV) Some pens are black (-)

(1) None follows

(2) Only either I or IV follows

(3) Only either I or III and either II or IV follow

(4) Only either I or III follows

(5) None of these

Ans (3)

Sol. Here, all four conclusions are doubtful. Conclusion (I) is positive and conclusion (III) is negative and the terms of both the conclusions i.e. 'toys' and 'black' are same then conclusion (I) and (III) form case of 'either'. Again conclusion (II) is negative and conclusion (IV)is positive and the terms of both the conclusions i.e. 'pens' and 'black' are same. So conclusion (II) and (IV) form case of 'either'. **Ans. (3)**

Ex.21: Statements:

Some beggars are leaders.

No caps are keys.

Some caps are beggars.

Conclusions:

(I) Some caps are leaders.

(II) Some beggars are keys.

(III) Some caps are not leaders.

(IV) Some beggars are not keys.

(1) Either I or III and II follow

(2) Either II or IV and I follow

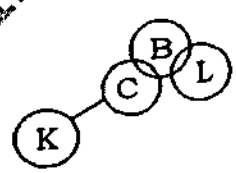
(3) Either II or IV and III follow

(4) Either II or IV and either I or III follow

(5) Either I or III and IV follow

Cap = C, Beggar = B, Leaders = L, Keys = K

Sol. Step I & II



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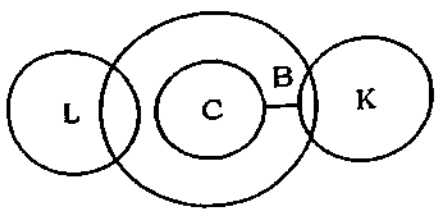

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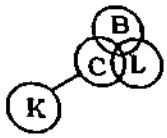


Here, conclusion I, II and III are doubtful and conclusion IV is right. Conclusion I is positive and conclusion III is negative and the terms of both the conclusions i.e. 'caps' and 'beggars' are same then conclusions I and III form case of 'either'. So answer will be either I or III and IV follow.

Ans. (5)

Ex. 22: Statement:

1. Some pads are not symbols.
2. All symbols are letters.
3. Some letters are boxes.

Conclusions:

(I) Some boxes are pads.

(II) Some pads are not boxes.

(III) Some pads are not letters.

(IV) All symbols are boxes.

(1) Only I follows

(2) Either I or II follows

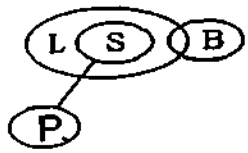
(3) Only IV follows

(4) Only III follows

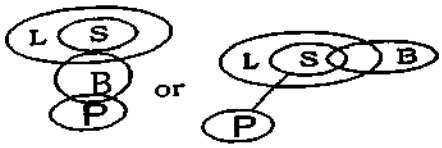
(5) Either I or III follows

Symbol = S, Letter = L, Boxes = B, Pads = P

Sol. Step I & II



or



Here, both conclusions (I) and (II) are doubtful and conclusion (I) is positive and conclusion (II) negative and the terms of both the conclusions i.e. 'boxes' and 'pads' are same then conclusions (I) and (II) form case of 'either'. So answer will be only either (I) or (II) follow. **Ans. (2)**

Exercise:

Directions (1 - 20): In each of the questions below are given two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Give answer:

(1) if only Conclusion I follows
(2) if only Conclusion II follows
(3) if either Conclusion I or II follows.
(4) if neither Conclusion I nor II follows.
(5) if both Conclusions I and II follow

1. **Statements:** Some kites are threads.
No thread is needle
Conclusions: I. Some kites are needles.
II. No needle is thread

2. **Statements:** Some books are pens.
All pens are paper.
Conclusions: I. Some papers are books.
II. All books are papers.

3. **Statements:** All chairs are buildings.
All tables are buildings.
Conclusions: I. Some chairs are tables.
II. Some tables are chairs.

4. **Statements:** Some trucks are houses.
Some houses are trains.
Conclusions: I. Some trains are trucks.
II. No train is truck.

5. **Statements:** All flowers are trees.
All trees are fruits.
Conclusions: I. Some fruits are flowers.
II. All flowers are fruits.

6. **Statements:** All pens are roads.
All roads are houses.
Conclusions: I. All houses are pens.
II. Some houses are pens.

7. **Statements:** Some books are bags.
All bags are trees.
Conclusions: I. Some books are trees.
II. Some trees are books.

8. **Statements:** Some windows are doors
No door is chair
Conclusions: I. Some windows are chairs
II. All doors are windows.

9. **Statements:** All forests are tigers.
Some tigers are horses.
Conclusions: I. Some horses are forests.
II. No horse is forest.

10. **Statements:** Some buses are trains.
Some trains are boats.
Conclusions: I. Some trains are buses.
II. Some boats are buses.

11. **Statements:** Some bottles are jungles.
All jungles are birds.
Conclusions: I. Some birds are bottles.
II. All bottles are birds.

12. **Statements:** Some bottles are tables.
Some tables are mirrors.
Conclusions: I. Some mirrors are books.
II. No book is mirror.

13. **Statements:** All roads are water.
Some water is boat.
Conclusions: I. Some boats are roads.
II. All waters are boats.

14. **Statements:** All flowers are trees.
No fruit is tree.
Conclusions: I. No fruit is flower.
II. Some trees are flowers.

15. **Statements:** All pens are chalks.
All chairs are chalks.
Conclusions: I. Some pens are chairs.
II. Some chalks are pens.

16. **Statements:** Some buses are bells.
Some bells are horses.
All trains are horses.
Conclusions: I. Some buses are horses.
II. Some trains are bells.

17. **Statements:** All goats are kites.
All roses are goats.
All kites are bees.
Conclusions: I. Some kites are roses.
II. Some goats are bees.

18. **Statements:** All classes are lions.
Some birds are classes.
All pens are lions.
Conclusions: **I.** No pen is bird.
II. Some birds are pens.

19. **Statements:** Some candles are papers.
All papers are trees.
Some books are papers.
Conclusions: **I.** Some books are candles.
II. Some trees are books.

20. **Statements:** All bats are elephants.
Some balloons are crows.
All crows are bats.
Conclusions: **I.** Some balloons are elephants.
II. Some elephants are crows.

Directions (21 - 34): In each of the questions below are given three statements followed by three conclusions numbered I, II & III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

21. **Statements:** All petals are trees.
All trees are gardens.
All roads are gardens.
Conclusions: **I.** Some roads are trees.
II. Some gardens are trees.
III. Some gardens are petals.
(1) Only I and II follow
(2) Only II and III follow
(3) Only I and III follow
(4) All I, II and III follow
(5) None of these

22. **Statements:** All keys are locks.
No lock is toy.
All bags are toys.
Conclusions: **I.** No bag is key.
II. Some bags are keys.
III. Some toys are keys.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and II follow

23. **Statements:** Some days are nights.
Some nights are months.
Some months are years.
Conclusions: **I.** Some years are nights.
II. Some months are days.
III. No year is night.
(1) Only I follows
(2) Only II follows
(3) Only III follows
(4) Only either I or III follows
(5) None of these

24. **Statements:** All cycles are tyres.
Some tyres are wheels.
All wheels are buses.
Conclusions: **I.** Some buses are tyres.
II. Some wheels are tyres.
III. Some buses are cycles.
(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

25. **Statements:** Some dogs are cats.
Some cats are horses.
All horses are tigers.
Conclusions: **I.** Some tigers are cats.
II. Some horses are dogs.
III. Some tigers are dogs.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only II and III follow

26. **Statements:** All ropes are sticks.
Some sticks are hammers.
Some hammers are lakes.
Conclusions: **I.** Some lakes are ropes.
II. Some hammers are ropes.
III. Some lakes are sticks.

(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and III follow

27. **Statements:** Some leaves are baskets.
Some baskets are flowers.
Some flowers are lakes.
Conclusions: **I.** Some lakes are baskets.
II. Some flowers are lakes.
III. No lake is basket.
(1) Only I follows
(2) Only II follows
(3) Only III follows
(4) Only either I or III follows
(5) None of these

28. **Statements:** All pictures are bands.
Some bands are chairs.
Some chairs are tables.
Conclusions: **I.** Some tables are bands.
II. Some chairs are pictures.
III. Some tables are pictures.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only I and II follow
(5) Only III follows

29. **Statements:** Some bikes are cars.
Some cars are trains.
Some trains are buses.
Conclusions : **I.** Some buses are cars.
II. Some trains are bikes.
III. Some buses are bikes.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and II follow

30. **Statements:** All dogs are cats.
Some cats are rats.
All rats are mats.
Conclusions: **I.** Some mats are cats.
II. Some mats are dogs.
III. Some rats are cats.
(1) Only I follows
(2) Only II follows
(3) Only III follows
(4) Only I and III follow
(5) None of these

31. **Statements:** All cups are benches.
Some benches are drums.
All drums are kites.
Conclusions: **I.** Some kites are cups.
II. Some kites are benches.
III. Some drums are cups.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only II and III follow

32. **Statements:** Some boxes are walls.
No wall is road.
All roads are rivers.
Conclusions: **I.** Some rivers are walls
II. Some roads are boxes
III. No wall is river
(1) Only I follows
(2) Only either I or III follows
(3) Only III follows
(4) Only II follows
(5) Only II and III follow

33. **Statements:** Some tables are chairs.
All chairs are houses.
All houses are tents.
Conclusions: **I.** All houses are chairs.
II. Some tents are chairs.
III. Some houses are tables.
(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

34. **Statements:** All pens are sticks.
All sticks are rings.
All rings are rods.
Conclusions: **I.** Some rings are pens.
II. Some rods are sticks.
III. Some rods are pens.
(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

Directions (35 - 39): In each of the questions below are given three statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

35. **Statements:** All flowers are rooms.
Some rooms are windows.
All cards are windows.
Conclusions: **I.** Some cards are flowers.
II. Some cards are rooms.
III. Some windows are flowers.
IV. All cards are rooms.
(1) None follows
(2) Only II follows
(3) Only I follows
(4) Only III follows
(5) Only IV follows

36. **Statements:** All males are wolves.
All owls are males.
All parrots are owls.
Conclusions: **I.** All wolves are owls.
II. All owls are wolves.
III. All parrots are wolves.
IV. All parrots are males.
(1) All follow
(2) Only III and IV follow
(3) Only II and III follow
(4) Only II, III and IV follow
(5) None of these

37. **Statements:** Some leaves are skies.
All skies are clouds.
No cloud is a boat.
Conclusions: **I.** Some boats are leaves.
II. Some clouds are leaves.
III. All skies are leaves.
IV. No leaf is a boat.
(1) Only I, II and IV follow
(2) Only II, III and IV follow
(3) Either I or IV and II follow
(4) Either I or IV and III follow
(5) None of these

38. **Statements:** No building is white.
All whites are oranges.
Some oranges are water.
Conclusions: **I.** No building is water.
II. No orange is a building.
III. Some oranges are whites.
IV. Some water is building.
(1) Either I or IV and II follow
(2) Either I or IV and III follow
(3) Either I or IV follows
(4) None follows
(5) Either I or IV and II and III follow

39. **Statements:** Some mangoes are apples.
Some bananas are apples.
Some branches are bananas.
Conclusions: **I.** Some mangoes are bananas.
II. Some branches are apples.
III. Some branches are mangoes.
IV. All apples are mangoes.
(1) None follows
(2) Only I and II follow
(3) Only III and IV follow
(4) Only I and IV follow
(5) All follow

Directions (40 - 50): In each of the questions below are given four statements followed by three conclusions numbered I, II, and III. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

40. **Statements:** Some nails are plates.
Some plates are disks.
All disks are mirrors.
All mirrors are tyres.
Conclusions: **I.** Some tyres are plates.
II. Some tyres are nails.
III. Some mirrors are plates.

(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

41. **Statements:** Some windows are lakes.
Some lakes are forests.
Some forests are hills.
All hills are curtains.
Conclusions: I. Some hills are windows.
II. Some curtains are lakes.
III. Some forests are windows.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and III follow

42. **Statements:** All tapes are branches.
Some branches are roads.
All roads are fruits.
Some fruits are trees.
Conclusions: I. Some trees are tapes.
II. Some fruits are tapes.
III. Some fruits are branches.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only II and III follow

43. **Statements:** Some pearls are chairs.
All chairs are trucks.
Some trucks are bricks.
All bricks are cars.
Conclusions: I. Some cars are chairs.
II. Some cars are trucks.
III. Some trucks are pearls.
(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

44. **Statements:** Some flowers are houses.
All houses are tigers.
All tigers are goats.
Some goats are bullocks.
Conclusions: I. Some goats are flowers.
II. Some tigers are flowers.
III. Some bullocks are tigers.
(1) Only I and II follow
(2) Only II and III follow
(3) Only I and III follow
(4) All I, II and III follow
(5) None of these

45. **Statements:** All cars are jeeps.
All jeeps are buses.
All buses are trucks.
Some trucks are pens.
Conclusions: I. All trucks are buses.
II. All buses are jeeps.
III. All jeeps are cars.
(1) None follows
(2) All follows
(3) Only III and I follow
(4) Only III follows
(5) None of these

46. **Statements:** Some skies are rains.
Some rains are stars.
All stars are planets.
All planets are clouds.
Conclusions: I. Some clouds are rains.
II. Some planets are skies.
III. Some planets are rains.
(1) Only I and II follow
(2) Only I and III follow
(3) Only II and III follow
(4) All I, II and III follow
(5) None of these

47. **Statements:** Some books are pens.
Some pens are watches.
All watches are books.
Some books are windows.
Conclusions: I. Some books are watches.
II. Some books are not pens.
III. Some watches are not books.

(1) All follow
(2) Only I and III follow
(3) Only I and II follow
(4) Only II and III follow
(5) None of these

48. **Statements:** All spoons are bowls.
All bowls are pans.
All pans are sticks.
All sticks are knives.
Conclusions: **I.** Some knives are pans.
II. Some sticks are bowls.
III. Some pans are spoons.
(1) Only I and II follow
(2) Only II and III follow
(3) Only I and III follow
(4) All I, II and III follow
(5) None of these

49. **Statements:** All threads are walls.
All lamps are walls.
Some kites are lamps.
Some lamps are rays.
Conclusions: **I.** Some kites are threads.
II. Some kites are walls.
III. Some lamps are threads.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only I and III follow

50. **Statements:** Some tables are chairs.
Some chairs are wheels.
Some wheels are boards.
Some boards are chalks.
Conclusions: **I.** Some chalks are wheels.
II. Some boards are chairs.
III. Some wheels are tables.
(1) None follows
(2) Only I follows
(3) Only II follows
(4) Only III follows
(5) Only II and III follow

Answers with explanation:
Note : The signs with their relevant meaning are given below :
✓ = True (follow)
× = False (does not follow)
- = may or may not true (does not follow)

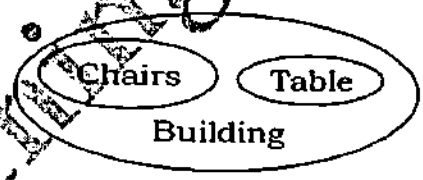
1. 2;

Conclusion: I -
II ✓

2. 1;

Conclusion: I ✓
II -

3. 4;

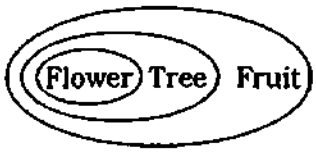


Conclusion: I -
II -

4. 3;

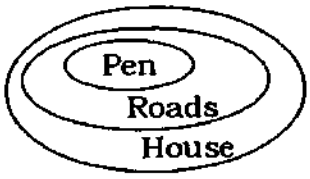
Conclusion: I - or
II -

5. 5;



Conclusion: I ✓
II ✓

6. 2;



Conclusion: I -
II ✓

7. 5;

Conclusion: I ✓
II ✓

8. 4; 

Conclusion: I -
II -

9. 3; 

Conclusion: I - ┐ or
II- ┘

10. 1; 

Conclusion: I ✓
II -

11. 1; 

Conclusion: I ✓
II -

12. 3; 

Conclusion: I - ┐ or
II- ┘

13. 4; 

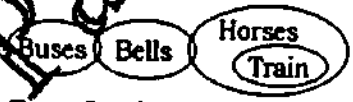
Conclusion: I -
II -

14. 5; 

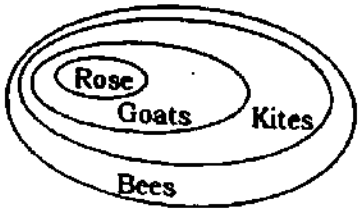
Conclusion: I

15. 2; 

Conclusion: I -
II ✓

16. 4; 

Conclusion: I -
II -

17. 5; 

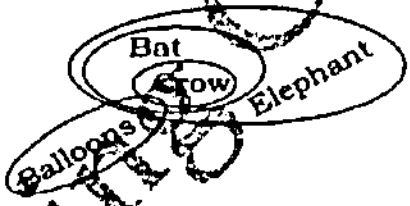
Conclusion: I ✓
II ✓

18. 3; 

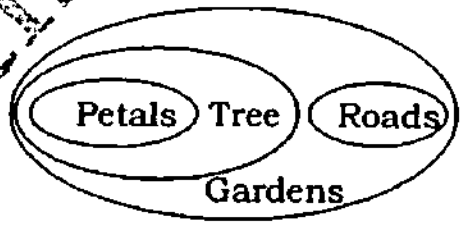
Conclusion: I - ┐ or
II- ┘

19. 2; 

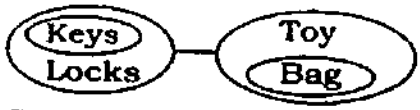
Conclusion: I -
II ✓

20. 5; 

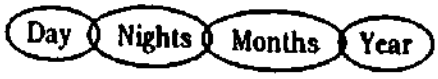
Conclusion: I ✓
II ✓

21. 

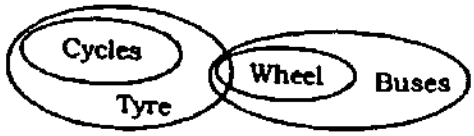
Conclusion: I -
II ✓
II ✓

22. 2; 

Conclusion: I ✓
II ×
II ×

23. 4; 

Conclusion: I - ┐
II - or
III- ┘

24. 1; 

Conclusion: I ✓
II ✓
III -

25. 2; 

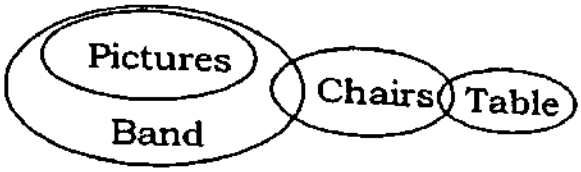
Conclusion: I ✓
II -
III -

26. 1; 

Conclusion: I -
II -
III -

27.5; Only either I or III and II follow.

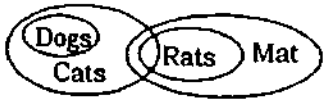
Conclusion: I -
II ✓ or
III -

28. 1; 

Conclusion: I -
II -
III -

29.1; 

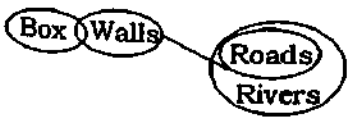
Conclusion: I -
II -
III -

30.4; 

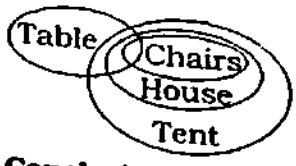
Conclusion: I ✓
II -
III -

31.3; 

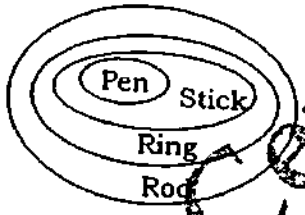
Conclusion: I -
II ✓
III -

32.2; 

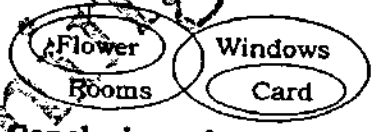
Conclusion: I -
II - or
III -

33.3; 

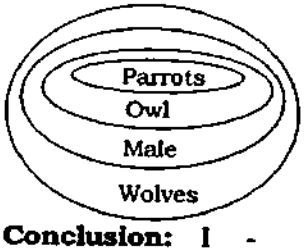
Conclusion: I -
II ✓
III ✓

34.4; 

Conclusion: I -
II ✓
III ✓

35.1; 

Conclusion: I -
II -
III -
IV -

36.4; 

Conclusion: I -
II ✓
III ✓
IV ✓

37.3; 

Conclusion: I -
II ✓
III - or
IV -

38.2; 

Conclusion: I -
II -
III ✓ or
IV -

39.1; 

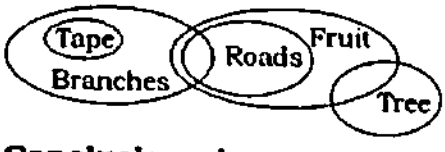
Conclusion: I -
II -
III -
IV -

40.2; 

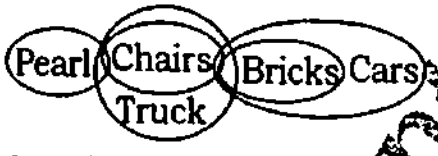
Conclusion: I ✓
II -
III ✓

41.1; 

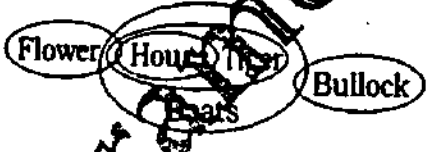
Conclusion: I -
II -
III -

42.4; 

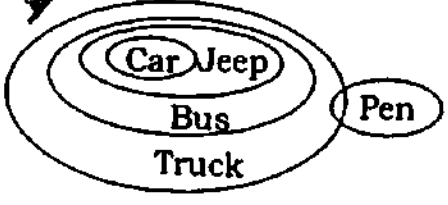
Conclusion: I -
II -
III ✓

43.3; 

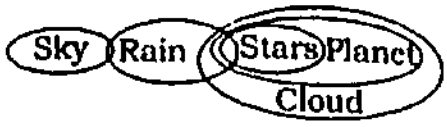
Conclusion: I -
II ✓
III -

44.1; 

Conclusion: I ✓
II ✓
III -

45.1; 

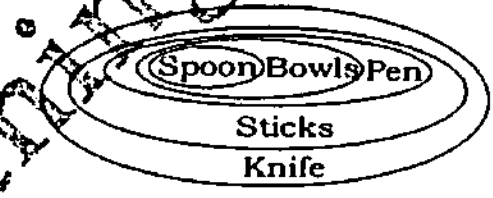
Conclusion: I -
II -
III -

46.2; 

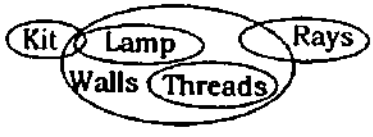
Conclusion: I ✓
II -
III ✓

47. 5; Only I follows.

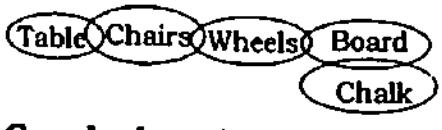
Conclusion: I ✓
II -
III ×

48. 4; 

Conclusion: I ✓
II ✓
III ✓

49. 3; 

Conclusion: I -
II ✓
III -

50. 1; 

Conclusion: I -
II -
III -