2.Syllogism Tricks

Syllogism is one of the most important and interesting topics in Reasoning and Solving Syllogism is always fun if you understand the shortcuts. If you understand the below concepts I assure you that you can solve 5 Syllogism problems in just 2

mins. Yes. Just 2 mins.

Have a Pen with you. Go through all the concepts one by one. Understand how to draw Venn Diagrams for each concepts. Then understand how the conclusion are made for each concepts.(Just don't Scroll down fast!!!).

Then work out the problems.

I insist you again. GO ONE BY ONE. Understand it. Then go to the next one. Make sure you are thorough enough with the given concepts.

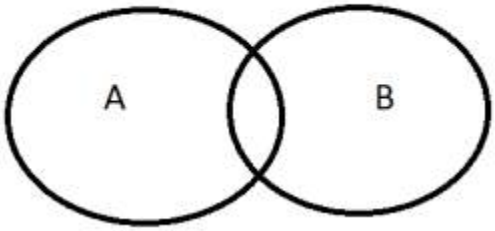
You don't need to memorize any statements or any conclusions. All you need is to UNDERSTAND.

Believe Me. It's very simple. It is not ROCKET SCIENCE.

The first step is to make a Venn diagram. Second step is deriving the conclusion. Let's go to all possible concepts. (Concepts = Statements)

CONCEPT 1 Some A is B.

The Diagram for Some A is B is



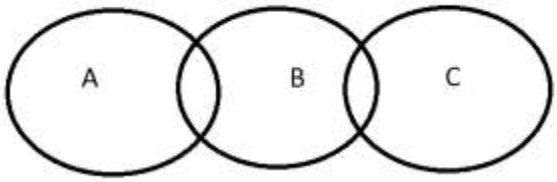
The possible conclusions are,

1) Some A is B

2) Some B is A

CONCEPT – 2 – Some A is B and Some B is C

The Diagram is,

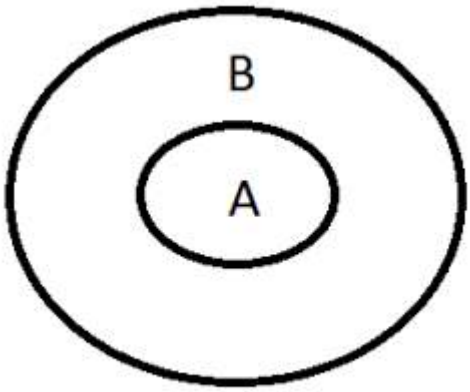


Now the Possible Conclusions are,

Between A and B	**Between B and C**
Some A is B	Some B is C
Some B is A	Some C is B

There is no DIRECT CONNECTION between A and C. So it is not possible to derive any conclusion between A and C.

CONCEPT 3 – All A is B



The Diagram is,

The Conclusions are,

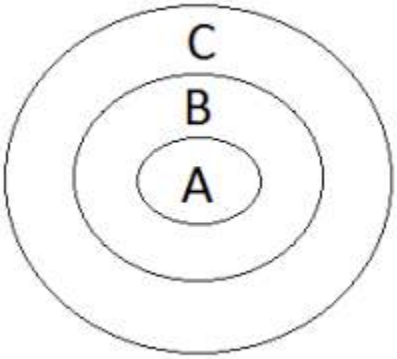
All A is B.

Some A is B.

Some B is A.

IMPORTANT NOTE : WHEN THE STATEMENTS ARE POSITIVE, THE CONCLUSIONS MUST BE POSITIVE.

CONCEPT 4 – All A is B and All B is C



The Conclusions are,

Between A and B	**Between B and C**	**Between A and C**
All A is B.	All B is C.	All A is C.
Some A is B.	Some B is C.	Some A is C.
Some B is A.	Some C is B.	Some C is A.

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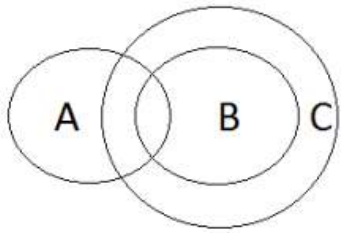
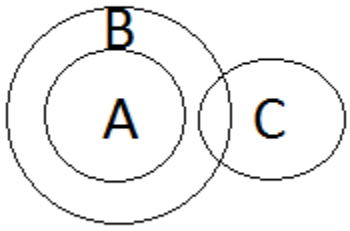
Concept 5 – Some A is B. All B is C.



The possible conclusions are,

Between A and B	**Between B and C**	**Between A and C**
Some A is B	All B is C	Some A is C
Some B is A	Some B is C	Some C is A
———————————	Some C is B	

Concept 6 – All A is B and Some B is C

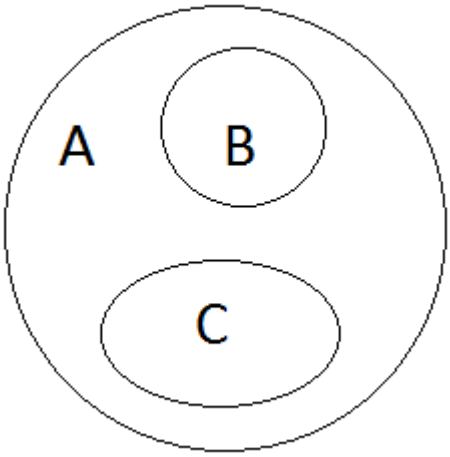


The possible conclusions are,

Between A and B	**Between B and C**
All A is B	Some B is C
Some A is B	Some C is B

Some B is A

There is no DIRECT CONNECTION between A and C. So it is not possible to derive any conclusion between A and C.

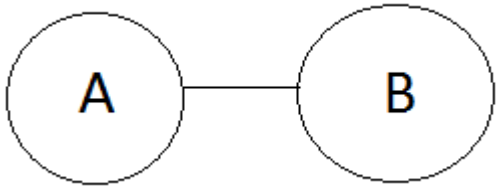


Concept 7 – All B is A and All C is A

The Possible Conclusions are,

Between A and B	**Between A and C**
All B is A	All C is A
Some B is A	Some C is A
Some A is B	Some A is C

There is no DIRECT CONNECTION between B and C. So it is not possible to derive any conclusion between B and C.



Concept 8 – No A is B

The Possible Conclusions are,

No A is B

No B is A

Some A is not B

Some B is not A

When NO comes in Statement, Some-not should follow in Conclusion

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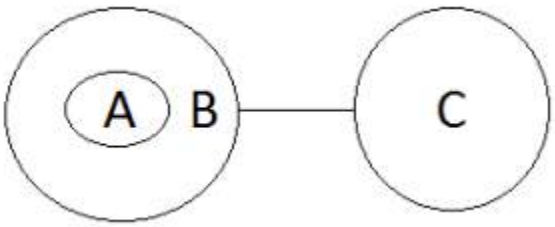
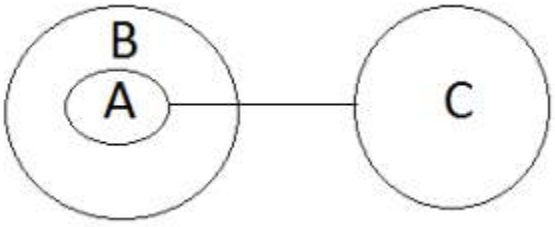
Concept 9 – All A is B and No B is C



The Possible Conclusions are,

Between A and B	**Between B and C**	**Between A and C**
All A is B	No B is C	No A is C
Some A is B	No C is B	Some A is Not C
Some B is A	Some B is not C	
	———————————-Some C is not B	

Concept 10 – All A is B and No A is C



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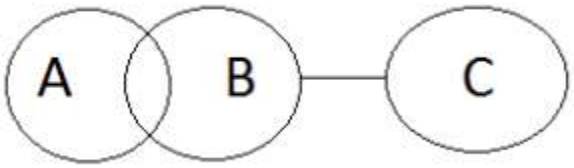
The Possible Conclusions are,

Between A and B	**Between A and C**	**Between B and C**
All A is B	No A is C	Some B is not C
Some A is B	No C is A	
Some B is A	Some A is not C	
——————————Some C is not A		

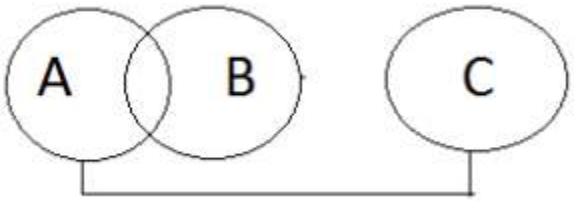
Concept 11 – Some A is B; No B is C



The Possible Conclusions are,

Between A and B	**Between B and C**	**Between A and C**
Some A is B	No B is C	Some A is not C
Some B is A	No C is B	
——————————-Some B is not C		
——————————Some C is not B		

Concept 12 – Some A is B; No A is C



The Possible Conclusions are,

Between A and B	**Between A and C**	**Between B and C**
Some A is B	No A is C	Some B is not C
Some B is A	No C is A	
——————————————-Some A is not C		
——————————————-Some C is not A		

Note: In all the above, the conclusions are made based on the statements. There in only one case where the conclusions are determined based on the conclusion itself. It is called as Merging Concept.

MERGING CONCEPT

This concept is applicable when more than one conclusion does not follows.

Rules:

The two non-following conclusions must be of same character.

One conclusion must be positive (All/Some)

One conclusion must be negative (No/Some-not)

Let me explain this concept with some examples.

Example 1:

Stmt : All Lotus are Flowers; No Lilly is Lotus.

Conclusion: No Lilly is a flower; Some Lilly is Flowers.

The first step is to draw Venn Diagram

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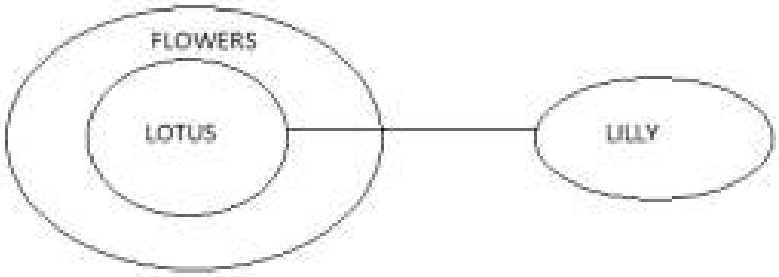

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Now Check the conclusions.

No Lilly is a flower. (It's not true)

Some Lilly is flowers (It is also not true)

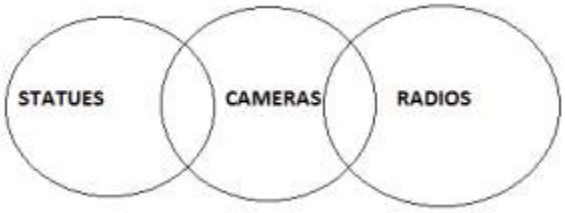
Two conclusions are false. And Both are same Characters (Lilly and Flower). One is Positive and one is negative. It satisfies all the rules of Merging Concept.

So the Answer is Either (i) or (ii) Follows.

Example 2

Stmt : Some Cameras are Radios; Some Statues are Cameras.

Conclusion : Some Radios are statues; No Radio is a Statue.



Conclusion 1 : Some Statues are Radios (It is false) (No direct relation between Statue and Radio)

Conclusion 2: No Radio is a Statue (It is False) (It is a negative conclusion) (When statements are positive, conclusions must be positive).

Now Check for merging concept.

Two Conclusions are False.

They are of same character. One is Positive and other is Negative.

Answer is **Either (I) or (II) Follows**

POSSIBILITY

Whenever the term "Possibility" OR "Can" comes in Conclusion, We need to check this simple table.

GIVEN	DESIRED	POSSIBILITY
SOME	ALL	YES
NO RELATION	SOME / ALL	YES

Let me explain you guys with an example.

Statements:

Some Mangoes are Apples; Some Bananas are Apples; Some Branches are Bananas

Conclusions:

Some Mangoes are Bananas

Some Branches Being Apples is a Possibility

Some Branches are Mangoes

All Apples Being Mangoes is a Possibility

The First Step is to draw Diagram.

Conclusion 1 : It is False. (No Direct Connection between them).

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Conclusion 2: No relation between Branches and Apples. “Possibility” is there. (Chk Table) (It is True)

Conclusion 3: It is False (No Direct relation)

Conclusion 4: Between Apples and Mangoes “Some” can come. “Possibility is there” (Check Table). It is also true.

So the conclusion is **II and IV Follows.**

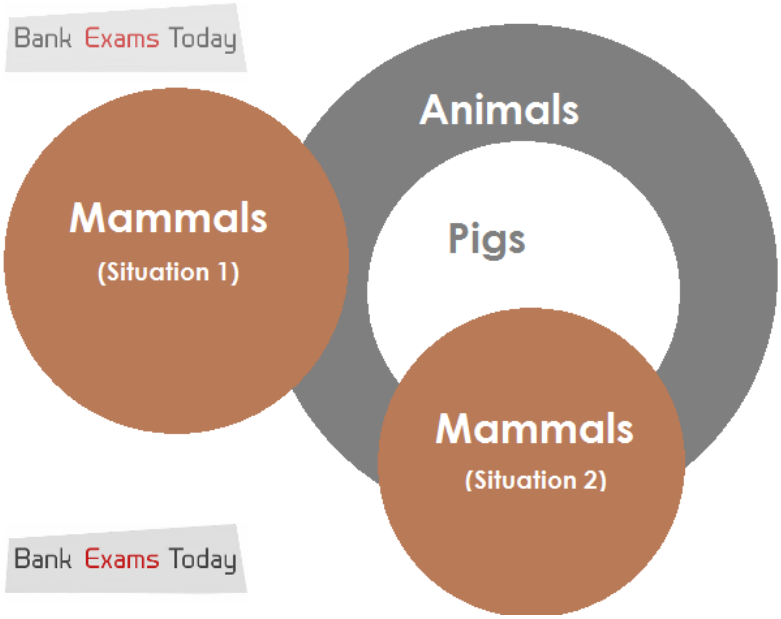
Types of conditions

As I always try to make things simple so instead of writing formulae and all that bulky stuffs, here I am explaining the technique using simple examples.

1) All pigs are animals. Some animals are mammals

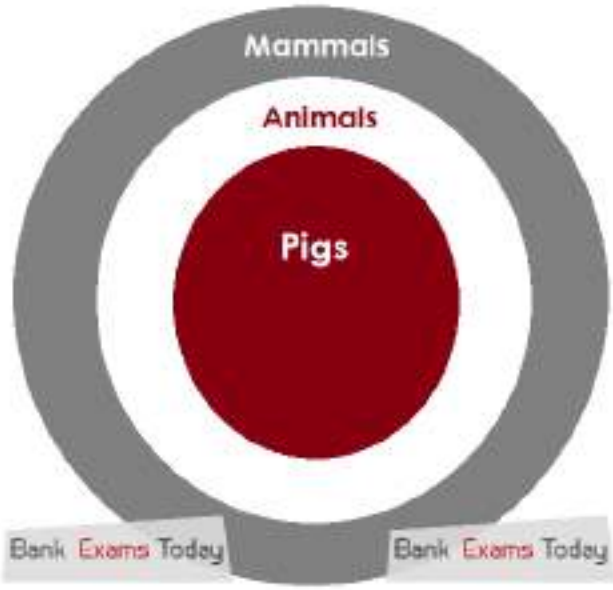
In this example, there are two sub-conditions.

Condition 1 - All pigs are animals. So circle Pig will be covered by circle Animals.
Conditions 2 - Some animals are mammals. This sub-conditions give two situations :- 1) Some pigs are mammals 2) No Pig is mammal.



2) All pigs are animals. All animals are mammals

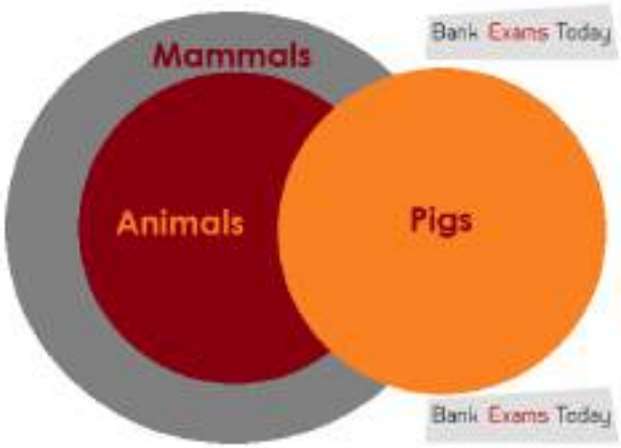
This example is bit simple. All pigs are part of category animal and all animals are part of category mammals.



3) Some pigs are animals. All animals are mammals

In this example there are two conditions. There is no proper order to apply these conditions. Some pigs are animals. All animals are mammals so Animals circle is covered Mammals circle.

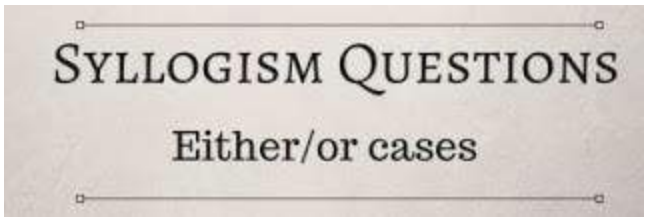
Conclusion is some but not all pigs are mammals.



In exam, try to make circles for every syllogism question. These questions take hardly 20-30 seconds to solve with this method. This year these type of questions replaced mirror image questions, so never skip these marks rich questions.

Practice Questions

Today we are sharing Practice Sets of Syllogism. Try out these and share your marks. Keep Practicing !



SET 1

In these questions two/three statements followed by two conclusions numbered I and II have been given. You have to decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Statement 1:

All fishes are birds.
No Bird is an animal.
All animals are mammals.

Conclusions A:

I At least some birds are mammals.
II All mammals being birds is a possibility.

1) Only conclusion II is true
2) Neither conclusion I or II is true
3) Both conclusion I and II are true
4) Either conclusion I or II is true
5) Only conclusion I is true

Conclusions B

I No fish is an animal
II All fishes being mammals is a possibility

1) Only conclusion II is true
2) Neither conclusion I or II is true
3) Both conclusion I and II are true
4) Either conclusion I or II is true
5) Only conclusion I is true

Statement 2:

Some forces are groups
All groups are powers
All powers are growth

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Conclusions A

I At least some forces are growth

II All groups are growth

1) Only conclusion II is true
2) Either conclusion I or II is true
3) Only conclusion I is true
4) Neither conclusion I or II is true
5) Both conclusion I and II are true

Conclusions B

I All forces being powers is possibility

II All powers are group

1) Only conclusion II is true
2) Either conclusion I or II is true
3) Only conclusion I is true
4) Neither conclusion I or II is true
5) Both conclusion I and II are true

Statement 3:

Some triangle are circles

All squares are circles

Conclusions:

I At least some squares are triangle

II All circles are triangles

1) Only conclusion I is true
2) Either conclusion I or II is true
3) Both conclusion I and II are true
4) Only conclusion II is true
5) Neither conclusion I or II is true

Statement 4:

All airways are trains

No train is a station

Some stations are airports

Conclusions:

I All airways being airports is a possibility

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II No airway is a station

1) Only conclusion I follows
2) Only conclusion II follows
3) Both conclusion I and II follows
4) Either conclusion I or II follows
5) Neither conclusion I or II follows

Statement 5:

All books are scales
All scales are pencils
Some scales are pens

Conclusions A:

I No book is pen
II All pencils are scales

1) Only conclusion I follows
2) Only conclusion II follows
3) Either conclusion I or II follows
4) Neither conclusion I or II follows

5) Both conclusion I and II follows

Conclusions B:

I At least some scales are pen
II No scale is a pen

1) Only conclusion I follows
2) Only conclusion II follows
3) Either conclusion I or II follows
4) Neither conclusion I or II follows

5) Both conclusion I and II follows

Statement 6:

All rainy are summers

Some summers are springs

No spring is sunny

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Conclusion A

I At least some rainy are springs

II Some sunny being summers is a possibility

1) Either conclusion I or II follows

2) Both conclusion I and II follows

3) Neither conclusion I or II follows

4) Only conclusion I follows

5) Only conclusion II follows

Conclusion B

I All summers can never be sunny

II No spring is a sunny

1) Either conclusion I or II follows

2) Both conclusion I and II follows

3) Neither conclusion I or II follows

4) Only conclusion I follows

5) Only conclusion II follows

SET 2

In the questions given below four statements followed by five conclusions, one of which definitely does not logically follow (or is not possibility of occurrence) from the given statements. That conclusion is your answer.

Statement 1:

No toy is a doll

All boxes are toys

All bears are dolls

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All dolls are baskets

Conclusions

1) All baskets are toys

2) No box is a bear

3) All boxes being baskets is a possibility

4) All bears are baskets

5) No doll is a box

Statement 2:

Some logics are answers

All answers are arguments

All arguments are fights

No fight is a meaning

Conclusions

1) All meanings being logic is possibility

2) No meaning is an argument

3) All logics being meaning is a possibility

4) All answers are fights

5) No answer is a meaning

Statement 3:

All references are letters

All contacts are references

All comments are contacts

No letter is confirmation

Conclusions

1) No reference is a confirmation

2) All comments are letters

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3) No contact is confirmation

4) All confirmations being comments is a possibility

5) At least some letters are contacts

Statement 4:

Some moments are memories

All moments are minutes

All memories are instances

No instance is an hour

Conclusions

1) All hours being minutes is a possibility

2) No minute is a memory

3) No hour is a memory

4) At least some seconds are instances

5) At least some minutes are instances

Statement 5:

All circles are spheres

All spheres are rectangles

No rectangle is a pyramid

No pyramid is a triangle

Conclusions:

1) At least some circles are pyramid

2) All triangles being circles is a possibility

3) All rectangles being triangles is a possibility

4) At least some rectangles are circles

5) No pyramid is a sphere

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Statement 6:

No hotel is a motel

All motels are apartments

All apartments are inns

No inn is a guest house

Conclusions

1) All hotels being inns is a possibility

2) No hotel is a guest house

3) All hotels being apartments is a possibility

4) No motel is an inn

5) No guest house is an apartment

ANSWERS AND SOLUTIONS

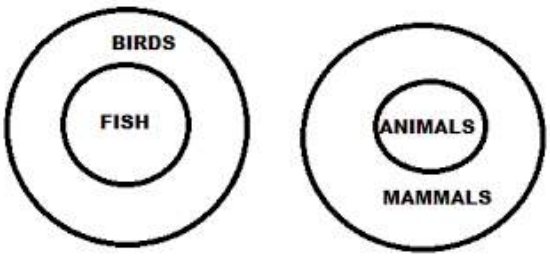
SET 1

1) Conclusion A -

Ans - 2) Neither conclusion I or II is true

Conclusion B -

Ans - 3) Both conclusion I and II are true



2) Conclusion A -

Ans - 5) Both conclusion I and II are true

Conclusion B -

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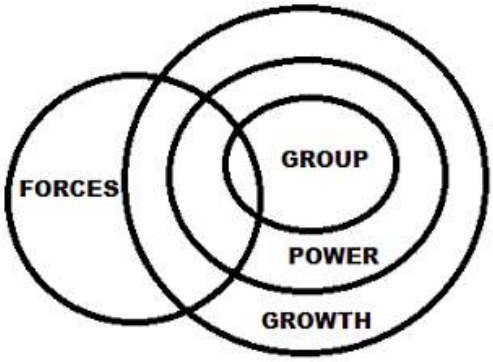
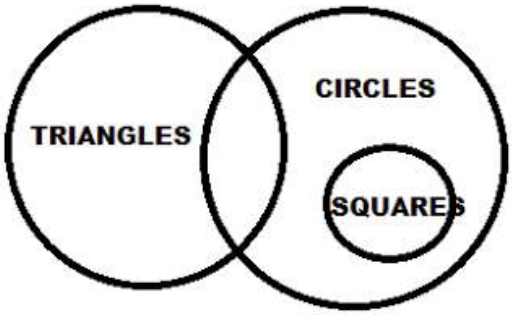
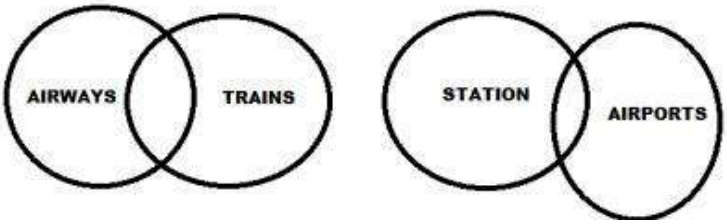
Ans - 3) Only conclusion I is true



3) Ans - 4) Neither conclusion I or II is true



4)

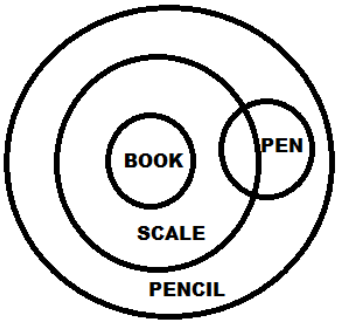


5) Conclusion A:

Ans - 4) Neither conclusion I or II follows

Conclusion B:

Ans - 3) Either conclusion I or II follows

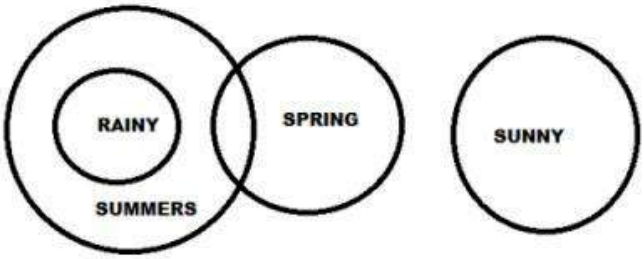


6) Conclusion A:

Ans - 5) Only conclusion II follows

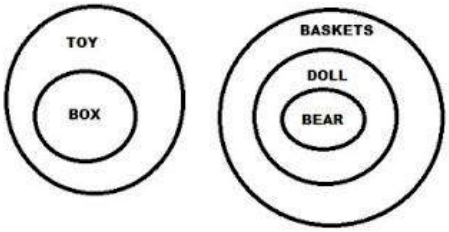
Conclusion B:

Ans - 2) Both conclusion I and II follows

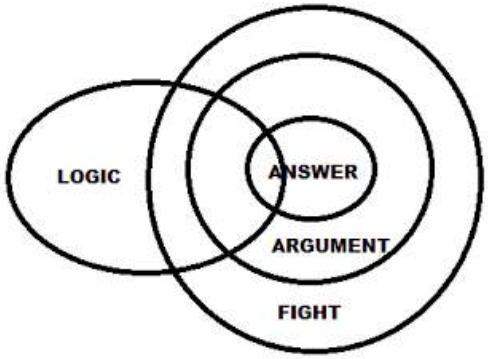


SET 2

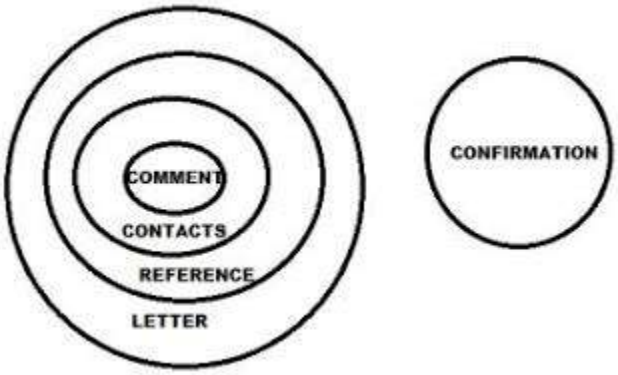
1) Ans - 1) All baskets are toys



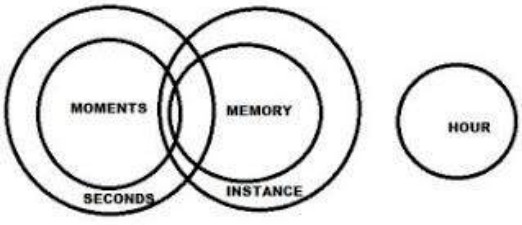
2) Ans - 3) All logics being meaning is a possibility



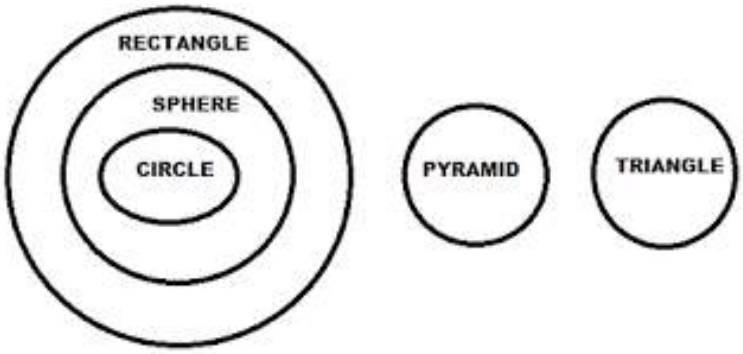
3) Ans - 4) All confirmations being comments is a possibility



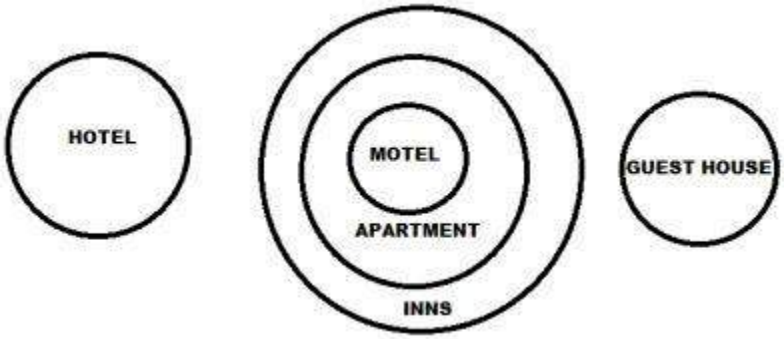
4) Ans - 2) No minute is a memory



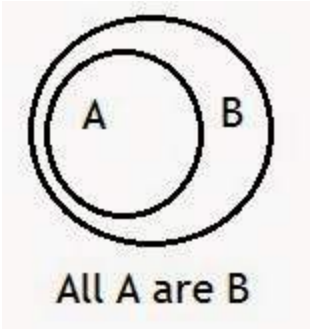
5) Ans - 1) At least some circles are pyramid



6) Ans - 4) No motel is an inn



Statement 1: All A are B



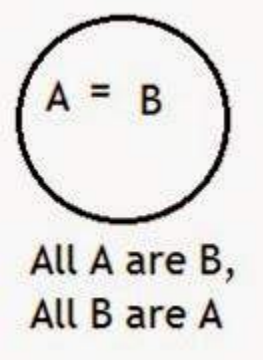
Now, let's try all these conclusions if they fit in this statement

1. Some A are B

2. No A are B
3. Some A are not B
4. All B are A
5. Some B are A
6. No B are A
7. Some B are not A

Is conclusion 1 following?
Yes! Of course! All A are B, that means Some A are Definitely B

Is conclusion 2 following?



Of course not!

What about 3rd?
Yes yes. Not following

4th?
Well, can follow, if A encircles B, i.e. All A are B and All B are A

5th?
Of course, some B are A

6th?
Bullshit conclusion. How can no B are A

7th?
Well, look at 4th conclusion. Its possible that All B are A if A also encircles B. In that case, Some B are not A will not follow. So, there's a possibility that this 7th conclusion will follow. Understood?

Statement 2: Some A are B

Now, let's try all these conclusions if they fit in this statement

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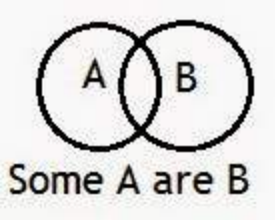
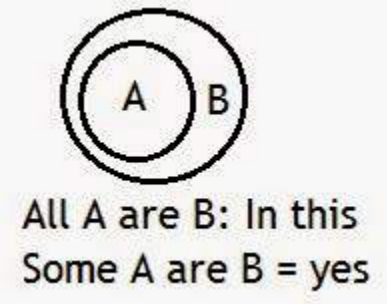


1. All A are B
2. No A are B
3. Some A are not B
4. All Bare A
5. Some B are A
6. No Bare A
7. Some B are not A



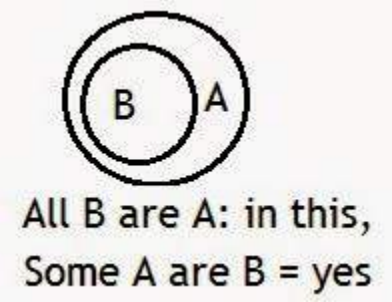
Is conclusion 1 following?
Could follow.

2nd?
Impossible.

3rd?
It won't follow in all the cases, but it's possible.

4th?
Again, it's possible.

5th?
Yes. Follow. In all cases.



6th?
Impossible.Nahinahinahi!

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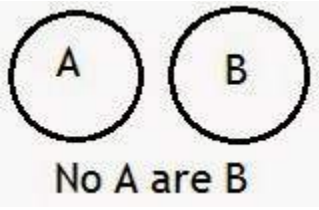
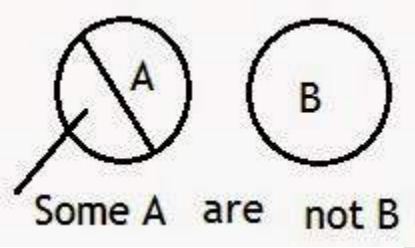
7th?
It could be possible. Won't follow in all the cases, but yes, it also could be possible.

Statement 3: No A are B

Now, let's try all these conclusions if they fit in this statement



1. All A are B
2. Some A are B
3. Some A are not B
4. All Bare A
5. Some B are A
6. No Bare A

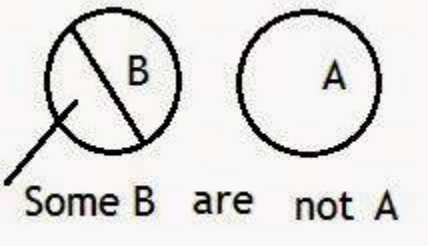


7. Some B are not A

Conclusion 1 following?
Of course not!

2nd?
Haha..

3rd?



No A are B, then Some A are also Not B.. Yes, following!

4th?

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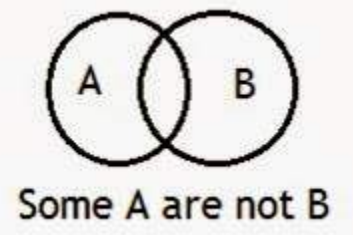
Clearly, not following!

5th?
What the hell. Not following!

6th?
Now this is class. Yes, follows!

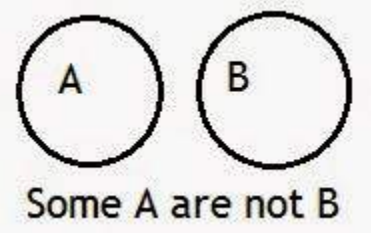
7th?
Of course will follow! No A are B only means, No B are A, which also means, Some B are not A

Statement 4: Some A are not B



Now, let's try all these conclusions if they fit in this statement

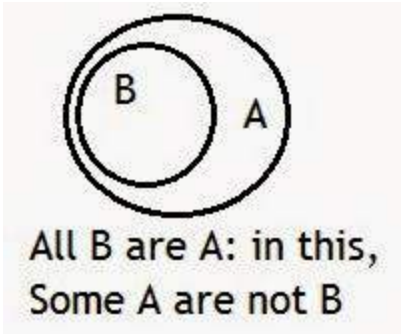
1. All A are B
2. Some A are B
3. No A are B
4. AllB are A
5. Some B are A



6. No Bare A
7. Some B are not A

Is conclusion 1 following?
Of course not!

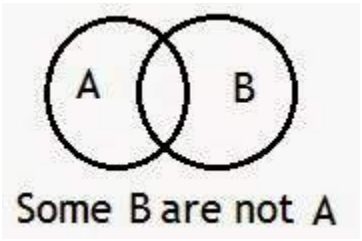
2nd?
It could be possible! Not in all cases, but it could be possible



3rd?
Again, could be possible!

4th?
Yes, yes. Could be possible!

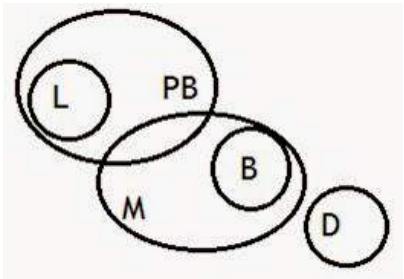
5th?
Not in all cases, but could be possible!



6th?
Again, it also could be possible!

7th?
Again, possible!

Now, let's solve some basic questions based on all the things that we've just learned.



Question 1:
Statements:
All buckets are mugs.

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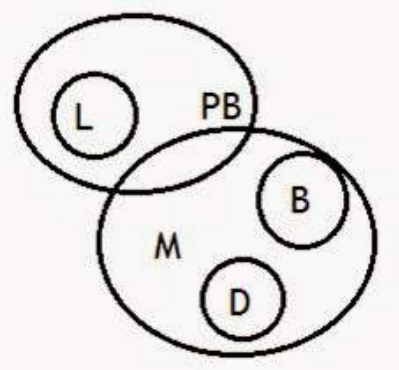
All lunch boxes are pencil boxes.
Some pencil boxes are mugs.
Some buckets are not drums.

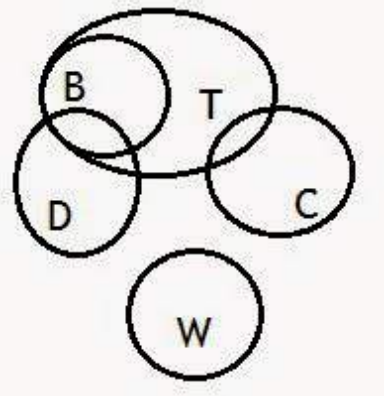


Conclusions:

I. All mugs are lunchboxes.
II. All lunchboxes are buckets.
III. Some lunchboxes are mugs.
IV. Some drums are not mugs.

1? Not follows
2? Not follows
3? Not follows
4? Not follows

Question 2:



Statements:
Some chairs are tables.
Some desks are benches.
All benches are tables.
Some woods are not desks.

Conclusions:
I. Some benches are desks.
II. Some tables are benches.

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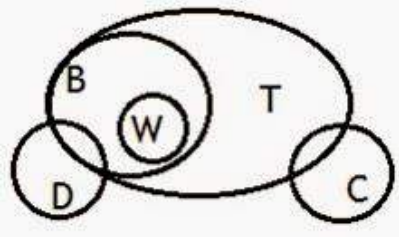
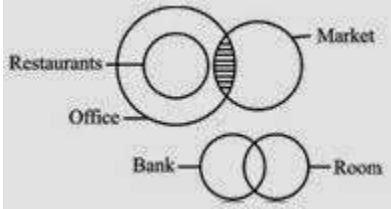
III. Some woods are not benches.
IV. Some desks are tables.



1? Yes
2? Yes
3? Not follows
4? Yes

Question 3:
Statements:
No bank is a market.
Some markets are offices.

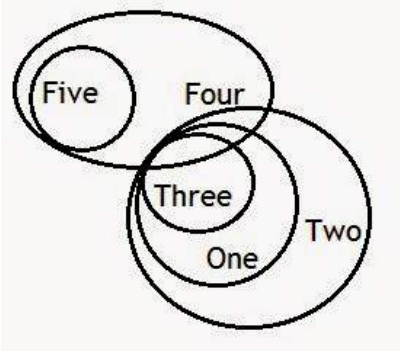


All restaurants are offices.
Some banks are rooms.

Conclusions:
I. Some markets are not rooms.
II. Some offices are not banks.
III. Some restaurants are markets.
IV. Some rooms are restaurants.

1? Not Follows
2? Yes. Some offices which are Market cannot be Banks
3? Not follows
4? Not follows

Question 4:
Statements:
All ones are twos.



Some threes are fours.
All three are ones.
All five are fours.

Conclusions:
I. Some fives are threes.
II. Some ones are fives.
III. Some twos are fives.
IV. Some twos are fours

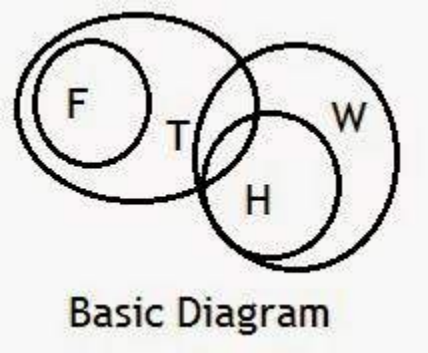
1? Not follows
2? Not follows
3? Not follows
4? Yes. Follows

In possibility questions, the examiner asks if there exists any such case (diagram) where this conclusion is valid. So, you job is to find out this case. If there exists at least one such case, then the conclusion holds true. If not, then the conclusion is false. As simple as that!

Keeping this and also the previous Syllogism Post in mind, let's solve some possibility questions.

Abbreviations that I used:
Basic Diagram = BD
Modified Diagram = MD

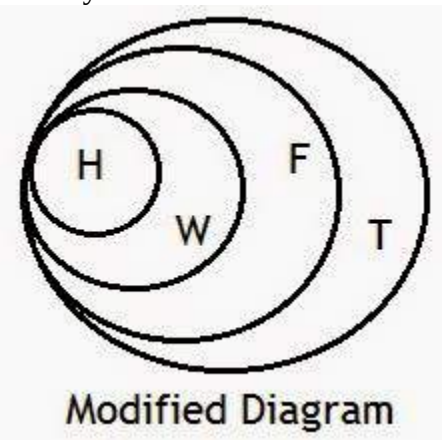
Question 1:



Statements:
A. All flowers are trees
B. Some trees are houses
C. All houses are wheels

Let's first make a BD according to these statements.

Conclusions:
1. At least some wheels are trees
2. Some trees are flowers
3. All wheels are flower is a possibility



Modified Diagram

Now, see the BD,
Conclusion 1 clearly follows.
Conclusion 2 also clearly follows.
But, what about Conclusion 3?

Let's make a MD and see if it follows or not!

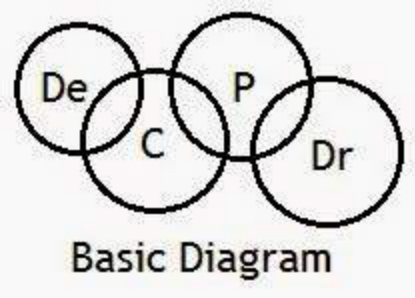
In the MD, we can clearly see that all the statements are still valid, and Conclusion 3 also is following. So, Conclusion 3 follows.

- 1? Follows
- 2? Follows
- 3? Follows

Understood?

Let's now solve another question!

Question 2:



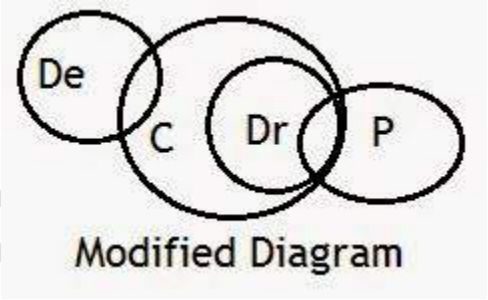
Basic Diagram

Statements:
A. Some desks are chairs
B. Some chairs are pens
C. Some pens are drawers

First, make a BD according to these statements.

Conclusions:
1. At least some drawers are desks
2. There is a possibility all drawers are chairs
3. No drawer is a chair

Now, see the BD
Conclusion 1 clearly doesn't follow.



Modified Diagram

But, what about Conclusion 2?

Let's make a MD

See the MD, Conclusion 2 follows in it.

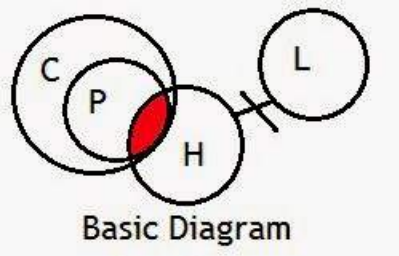
And if there is a possibility that All drawers are chairs, then how could No drawer is a chair follow?
So, Conclusion 3 will not follow!

- 1? Doesn't follows
- 2? Follows
- 3? Doesn't follows

Understood?

Let's solve another one!

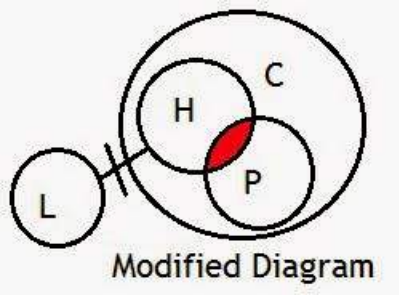
Question 3:



Statements:
A. All politicians are corrupt
B. Some politicians are honest
C. No leader is honest

First, make a BD according to these statements.

Conclusions:
1. Some politicians are not leader
2. All honest being corrupt is a possibility



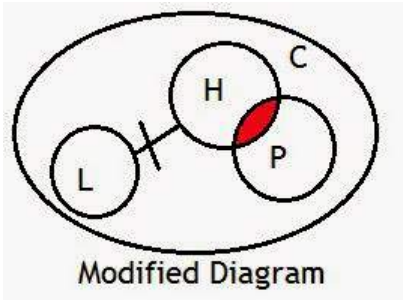
3. Some leaders are not corrupt

Now, see the BD,
Some politicians, which are honest (Red Portion), cannot beleaders.
So, Conclusion 1 clearly follows.

But, what about Conclusion 2?

Let's make a MD.

See the MD, Conclusion 2 clearly follows!



Modified Diagram

What about conclusion 3?

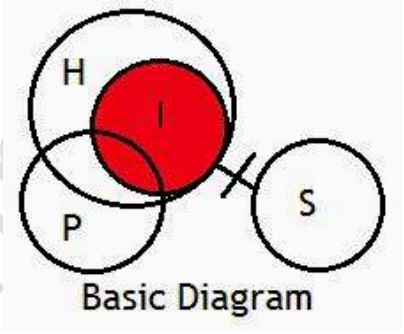
Let's make another MD.

See the last diagram, All leaders are corrupt could be a possibility! So, Conclusion 3 doesn't follow.

- 1? Follows
- 2? Follows
- 3? Doesn't follows

Understood?

Question 4:



Basic Diagram

Statements:
A. Some people are intelligent
B. All intelligent are honest
C. No intelligent is smart

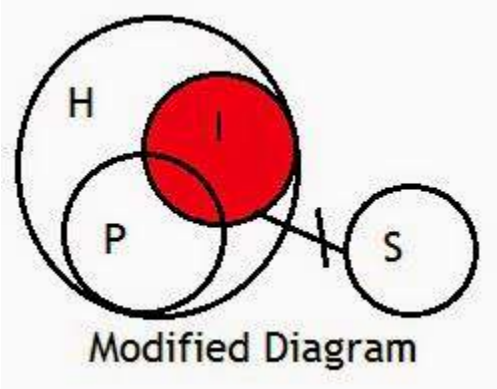
First, make a BD according to these statements.

Conclusions:
1. Some honest are not smart
2. All people being honest is a possibility
3. Some honest are people

Now, see the BD,

Some honest, which are intelligent (Red Portion), cannot be smart.
So, Conclusion 1 follows.

But, what about Conclusion 2?



Let's make a MD.

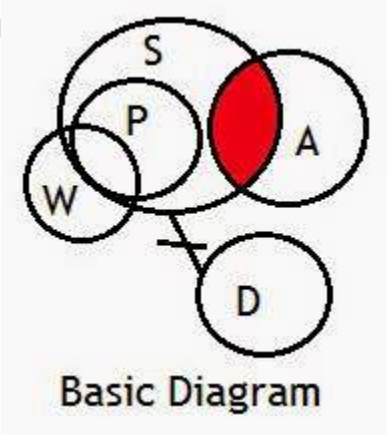
See the MD, Conclusion 2 clearly follows.

Conclusion 3 also follows.

- 1? Follows
- 2? Follows
- 3? Follows

Understood?

Question 5:



Statements:
A. Some writers are poets
B. All poets are singers
C. Many singers are actors
D. No singer is a dancer

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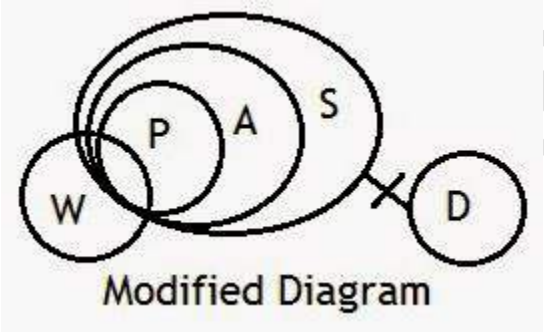
First, make a BD according to these statements.

Conclusions:
1. Some writers are singers
2. Some actors are not dancers
3. All poets being actor is a possibility
4. No poet is a dancer

See the BD,
Conclusion 1 clearly follows.

Also, some actors, which are singers (Red Portion), cannot be dancers.
So, Conclusion 2 also follows.



Modified Diagram

But, what about Conclusion 3?

Let's make a MD.

See the MD,
Conclusion 3 clearly follows.

Also, since no singer is a dancer, so, no poet is a dancer.
Hence, Conclusion 4 is also following!

- 1? Follows
- 2? Follows
- 3? Follows
- 4? Follows

Understood?

PS: Try re-doing these questions again if you still feel confused. Confusions will be clear this way!