

Logical Deduction - Solved Examples

In each of the following question, two or three statements are given and after that two conclusions are provided. You have to take the statements to be true though it shows difference from the known facts. At first, read the statements and then go to the conclusions. Among the conclusions decide which is logically correct and answer the question by choosing the options provided.

Q 1 – Statements: All ways are waters. Some waters are boats.

Conclusions:

- I. Some boats are ways.
- II. All waters are boats.

Options:

- A - Only conclusion I is correct.
- B - Only conclusion II is correct.
- C - Either I or II is correct.
- D - Neither I nor II is correct.
- E - Both I and II are correct.

Answer - D

Explanation

Some boats cannot be ways and all waters can never be boats. Hence, option D is correct. i.e. neither option A nor B is correct.

Q 2 – Statements: No match can sound. Some matches are cricket.

Conclusions:

- I. Some cricket are matches.
- II. All cricket are matches.

Options:

- A - Only conclusion I is correct.
- B - Only conclusion II is correct.
- C - Either I or II is correct.
- D - Neither I nor II is correct.
- E - Both I and II are correct.

Answer - A

Explanation

As some matches are cricket. Hence, option A.

Q 3 – Statements: All lasers are rays. All sun are rays.

Conclusions:

- I. Some sun are lasers.
- II. No sun is laser.

Options:

- A - Only conclusion I is correct.
- B - Only conclusion II is correct.
- C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - C

Explanation

If we look at the statements and conclusions, we can get that either some sun are lasers or no sun are lasers. Hence, option C is correct.

Q 4 – Statements: The Ganga is divine. All churches are divine.

Conclusions:

I. The Ganga is churches.

II. All churches are Ganga.

Options:

A - Only conclusion I is correct.

B - Only conclusion II is correct.

C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - D

Explanation

Since the intermediate term 'divine' is not distributed even once in the statements, no definite conclusion can be drawn.

Q 5 – Statements: Some tigers are goats. All goats are cows.

Conclusions:

I. All cows are goats.

II. Some tigers are cows.

Options:

A - Only conclusion I is correct.

B - Only conclusion II is correct.

C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - B

Explanation

All cows are goats but it does not mean all goats will be cows. Also some tigers are cows. Hence, option B is correct.

Q 6 – Statements: All buildings are streets. Some streets are canals.

Conclusions:

I. Some canals are buildings.

II. All streets are canals.

Options:

A - Only conclusion I is correct.

B - Only conclusion II is correct.

C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - D

Explanation

As some streets are canals and all buildings are streets, here we can get that neither some canals are buildings nor all streets are canals, hence, option D is correct.

Q 7 – Statements: Some girls are thieves. All thieves are dacoits.

Conclusions:

I. Some girls are dacoits.

II. All dacoits are girls.

Options:

A - Only conclusion I is correct.

B - Only conclusion II is correct.

C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - A

Explanation

Since one statement is particular, the conclusion must be particular. So, conclusion two does not follow.

Q 8 – Statements: All purple are orange. All black are orange.

Conclusions:

I. Some black are purple.

II. No black is purple.

Options:

- A - Only conclusion I is correct.
- B - Only conclusion II is correct.
- C - Either I or II is correct.
- D - Neither I nor II is correct.
- E - Both I and II are correct.

Answer - C

Explanation

As all purple are orange and all black are orange so both black and purple are inside orange. So it has equal chances that some black are purple or no black is purple. Hence, option C is correct.

Q 9 – Statements: Some huts are offices. Some offices are schools.

Conclusions:

- I. Some schools are huts.
- II. Some offices are huts.

Options:

- A - Only conclusion I is correct.
- B - Only conclusion II is correct.
- C - Either I or II is correct.
- D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - B

Explanation

Some huts are offices so definitely some offices are huts. But some schools are huts does not holds true good. Hence, option B is correct.

Q 10 – Statements: Every girl is a student. Every student is experienced.

Conclusions:

I. Every girl is experienced.

II. Some experienced are students.

Options:

A - Only conclusion I is correct.

B - Only conclusion II is correct.

C - Either I or II is correct.

D - Neither I nor II is correct.

E - Both I and II are correct.

Answer - E

Explanation

'Every' is equivalent to 'All'. Since both the statements are broad and affirmative, the conclusion must be broad affirmative and should not contain the intermediate term. So, I is valid. II conclusion is the opposite of the second statement and thus it also holds true.