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## Chapter 1: Statement and Conclusion Questions

### 1.1 Introduction: Statement and Conclusions:

These questions are given to check the logical ability to arrive at a decision based on certain facts.

**A statement** is a group of words arranged to form a meaningful sentence. A statement is a formal account of certain facts, views, problems or situations expressed in words.

**A conclusion** is a judgment or decision reached after consideration about the given statement. A conclusion is a belief or an opinion that is the result of reasoning out a given statement. It can also be defined as a proposition in an argument to which other propositions in the argument given support.

A conclusion is an opinion or decision that is formed after a period of thought or research on some facts or sentence stated by someone. A consequent effect has always to be analyzed before reaching to the final result or conclusion of a given premise. This requires a very systematic and logical approach.

**Example:**

**Statement:** Some people say that good thought come in their mind in the morning.

**Conclusion:** Thoughts come in mind, in the morning only.

Now, consider the statement, the word 'some' used in the statement does not mean 'all'. It means some people say not all. Hence, according to some people, good thoughts come in their mind in the morning but thought can come any time in the mind of other people, so, the conclusion that 'thoughts' come in mind, in the morning only is not valid. Also, the word used 'only' makes the conclusion totally invalid because it restricts that the thought can come only in the morning.

## 1.2 Format of Question

**The question will have following components**

**Statement:-**A statement is a formal account of certain facts, views, problems or situations expressed in words.

**Conclusion:-**A conclusion is a belief or an opinion that is the result of reasoning out a given statement. It can also

be defined as a proposition in an argument to which other propositions in the argument give support.

### **Evaluation of Conclusions:**

A conclusion is said to follow the given statement if what is mentioned in the conclusion can be inferred from the given statement.

### **Type 1: One Statement with two conclusions based**

In these types of questions, a statement is given followed by two conclusions. You are required to find out which of conclusion follows the given statement and select the correct option accordingly.

### **Example**

**Directions (1 – 2):** In each of the following questions, a statement is followed by two Conclusions I and II.

### **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

**1. Statement:** Parents are prepared to pay any price for an elite education to their children.

**Conclusion:**

I. All parents these days are very well off.

II. Parents have an obsessive passion for perfect development of their children through good schooling.

**Sol.** Option (b)

It may be conclusion from the statement that since parents want a perfect development of their children through good schooling therefore they are prepared to pay any price for a good education but the statement does not give sense of the parents being very well off. Hence, only Conclusion II follows.

**2. Statement:** Interview panel may select a student, who neither possess the abilities of desired level nor any value and assumption.

**Conclusions**

I. Inclusion of experts in interview panel does not ensure that the selection will be made properly.

II. Interview procedure of admission has some limitations.

**Sol.** The statement clearly means that inclusion of experts does not ensure proper selection. It also indicates limitation of interview procedure for admission. Here, both the conclusions follow.

### **Type 2: More Than Two Statements and Conclusion Based**

In this type of questions, a statement / statements is/ are given followed by some conclusion. Choose the conclusion which follows the given statement.

**Directions (3 - 4):** Which of the conclusion can be drawn from the statement?

**3. Statement:** Many business offices located in buildings having two to eight floors. If a building has more than three floors, it has a lift.

**Conclusions:**

- (a) All floors may be reached by lifts
- (b) Only floors above the third floor have lifts

- (c) Fifth floor has lifts
- (d) Second floors do not have lifts

**Sol.** option(c) It is clear from the given statement.

#### **4. Statements**

Karan Johar is a good director. Directors are intelligent.

#### **Conclusions:**

- (a) All intelligent are directors
- (b) Karan Johar is intelligent
- (c) Both (a) and (b)
- (d) None of these

**Sol. (b)** As directors are intelligent and Karan Johar is good director, so Karan Johar is intelligent.

### **1. 3 Tips to Solve Statement and Conclusion Questions**

1. To reach to a conclusion think only about the information given in the statement. There is no need to use, assume anything else or add any further or extra information from outside but the

established facts cannot be denied like the Sun always rises in the East, a day consists of 24 h etc.

2. Statements and conclusion should not go against established facts and prevailing notions of truth.
3. If definitive words like all, always, at least, only, exactly and so on are used, then such words make the conclusion invalid or ambiguous.
4. Always read very carefully and try to find key words as key words play an important role in analyzing valid and invalid conclusions.
5. If the conclusion is provided with a stated example, then the conclusion is invalid.
6. **Keywords:** Words, such as all, no, few, most, must, had to, will be, always, never, should be, may, may not etc, help in evaluating the given conclusions.

**Let us consider the following example:**

**Statement:** 'South Asia will remain unaffected by global crisis' – world bank.



**Conclusion:** Sri Lanka, a South-Asian country, may or may not face the problem caused by global crisis.

**Analysis:-**

Sri Lanka is a part of south-Asia; hence the statement made by the World Bank is applicable to Sri Lanka as well. The word 'will' is definitive in nature. It implies that every South-Asian country definitely remains unaffected. The words 'may or may not' are in-definitive in nature. The effect of global crisis on Sri Lanka is uncertain, but the statement is certain. Hence, the conclusion does not follow the given statement.

### **Practice Questions:**

**Directions:** In each of the following questions, a statement is given, followed by two conclusions.

**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

**1. Statements:**

Prime age school-going children in urban India have now become avid as well as more regular viewers of television, even in households without a TV. As a result there has been an alarming decline in the extent of readership of newspapers.

**Conclusions:**

1. Method of increasing the readership of newspapers should be devised.

2. A team of experts should be sent to other countries to study the impact of TV. on the readership of newspapers.

**Ans.** Option D

**Explanation** The statement concentrates on the increasing viewership of TV and does not stress either on increasing the readership of newspapers or making studies regarding the same. So, neither I nor II follows.

**2. Statement:** Government has spoiled many top ranking financial institutions by appointing bureaucrats as Directors of these institutions.

**Conclusions:**

I. Government should appoint Directors of the financial institutes taking into consideration the expertise of the person in the area of finance.

II. The Director of the financial institute should have expertise commensurate with the financial work carried out by the institute.

**Ans.** Option E

**Explanation:** According to the statement, Government has spoiled financial institutions by appointing bureaucrats as Directors. This means that only those persons should be appointed as Directors who are experts in finance and are acquainted with the financial work of the institute. So, both I and II follow.

**3. Statements:** Population increase coupled with depleting resources is going to be the scenario of many developing countries in days to come.

**Conclusions:**

- I. The population of developing countries will not continue to increase in future.
- II. It will be very difficult for the governments of developing countries to provide its people decent quality of life.

**Ans.** Option B

**Explanation:** The fact given in I is quite contrary to the given statement. So, I does not follow. II mentions the direct implications of the state discussed in the statement. Thus, II follows.

**4. Statement:** Vegetable prices are soaring in the market.

**Conclusions:**

- I. Vegetables are becoming a rare commodity.
- II. People cannot eat vegetables.

**Ans.** Option D

**Explanation:** The availability of vegetables is not mentioned in the given statement. So, I does not follow.

Also, II is not directly related to the statement and so it also does not follow.

**5. Statement:** The best way to escape from a problem is to solve it.

**Conclusions:** I. Your life will be dull if you don't face a problem.

II. To escape from problems, you should have some solutions with you

**Ans.** Option (D).

**Explanation:** Clearly both I and II do not follow from the given statement.

## Chapter 2: Evaluating Inferences

It has become a regular trend in many papers to ask questions of this type. A passage is given which is usually a part of a report or an essay or any other similar thought-provoking subject. Some inferences are given followed by the passage (there are usually five inferences). The candidate is asked to decide whether a given inference follows or not in the light of the given passage.

**Directions:** Given below is a passage followed by several inferences based upon it. You have to examine the passage carefully and then decide the validity of each of the inferences. Mark answer,

- A. if the inference is definitely true;
- B. if the inference is probably true;
- C. if the data are inadequate, i.e., in the light of the given passage. You cannot say whether the inference is likely to be true or false;
- D. if the inference is probably false; and
- E. if the inference is definitely false.

Now read the passage and the inferences and choose your answers.

### **Sample Passage**

The theory of Odgen and Williams is being taken seriously by the scientific community ever since photovoltaic cells with thirty per cent efficiency were produced under experimental conditions. Companies like Siemens are spending millions of dollars to produce more efficient solar cells. The American Department of Energy is confident that it will be able to produce 22-percent-efficient solar cells by the turn of the century. But anyway, to fulfil the needs of a country the size of America, an area equal to the state of Michigan would have to be blanketed by solar cells.

### **Inferences**

1. Odgen and Williams were respectable scientists of the late 19th century.
2. The theory of Odgen and Williams proposes that solar energy can be produced at a higher rate of efficiency than normally expected by following certain rules and norms.

3. In America research on solar power is undertaken by private as well as government enterprise.
4. The current efficiency of photovoltaic cells in America is far below 30%.
5. In terms of area America is not very big.

### **Analysis**

First of all, let us see what these questions seek to test. Examiners put these questions because they test your ability to derive correct inference and your reasoning ability is thus evaluated. Also, here the examiner can 'grade' the choices closely. Thus there are two positive choices instead of one: "probably true" and "definitely true" and two negative choices instead of one: "probably false" and "definitely false". This requires slightly deeper thinking. Further, syllogistic reasoning has a very set pattern; the inferences there are a fixed combination of four fixed types of propositions (A, E, I or O). Also, in those questions the given statements are hypothetical in nature - like "All boys are toys" or "Some cows are elephants". In this respect, passage-based inferences are different from syllogism-based inferences, because in the former, passages are from a practical world, cover everyday-life situations and are not hypothetical. Thus it



gives the examiner a wider scope to examine your intelligence with.

Having discussed the purpose of these questions, let us come to something really important: let us examine what difficult aspects of such questions are; or, in other words, what may make such questions difficult.

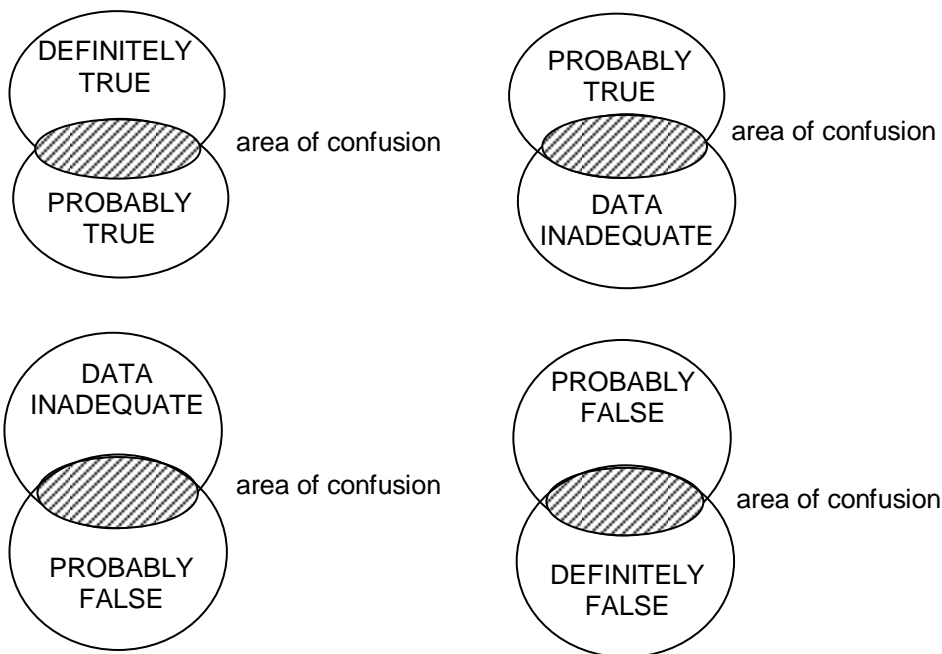
The most sensitive aspect of this question is its gradedness. Some of the inferences can be easily and quickly judged because they can be easily compared with the facts given in the passage. But in some cases, an inference is indirect and may lead to confusion. You may vacillate between 'definitely true' and 'probably true' or between 'probably true' and 'data inadequate' or between 'data inadequate' and 'probably false' or between 'probably false' and 'definitely false'. For example, look at inference (3) of the sample passage given above. This is straightforward and you shouldn't have any difficulty in seeing that the correct answer is 'definitely true', because the passage clearly mentions the involvement of a 'company' (Siemens) and a government body (Department of Energy). But now look

at inferences (2) and (5). In (2), one may vacillate between 'data inadequate' and 'probably true'. 'Data inadequate' will look correct because no mention has been made of what exactly is proposed in the theory of Odgen and Williams. 'probably true' looks correct because the passage says that the theory of Odgen and Williams began to be taken seriously after photovoltaic cells with higher efficiency were made. This means that there was something in the theory, which got support from higher-efficiency photovoltaic cells. Thus it 'looks' true that the theory had proposed that higher-efficiency cells could be created, etc. On the other hand, in (5), you may vacillate between 'data inadequate' and 'probably false'. 'Data inadequate' may appear correct because no information is given about the 'comparative' size of America, whether it is big or small. 'Probably false' may appear correct because the 'tone' of the sentence - "of a country the size of America ...." - is such as if America were a big country.

The conclusion of our analysis, therefore, is that the main area of difficulty in solving such questions is the

possibility of confusion between two similar choices.  
These possibilities are depicted pictorially in the figure below.

We shall have special emphasis upon these 'confusion areas' which will follow an overall study of the technique of solving such questions.



## The Technique

The best technique of evaluating a given inference is to subject it a three-pronged, graded test. This test consists of three steps:

- (i) Directly follows from the passage.
- (ii) Can be inferred from the passage.

In the first category lie the easy questions where an inference is more or less a restatement of something already stated in the passage. In the second category, we check if the inference can be derived from the facts mentioned the given inference.

### **How to avoid confusion while deriving inferences?**

We have seen that a given inference can, sometimes, be very easily evaluated because it is almost explicitly stated in the passage. At other times, we may have to apply a little logic while evaluating a given inference because the inference may be only indirectly related to the passage. While doing this, we need to pay some

special attention to some key words because they may provide the key to the answer.

But we are likely to get confused sometimes, especially if the questions are tough. As already stated there are four main possibilities of confusion. We are giving some tips so that you overcome the confusion easily.

### **I. Definitely True or Probably True?**

This confusion may arise if the given inference is not directly stated in the passage and yet appears 'almost' definitely true to you. But since it is not directly or explicitly stated you hesitate and think that even 'probably true' could be correct.

To avoid this confusion recheck your reasoning. If the inference is 'extra' to come to this conclusion. Now ask yourself this question: "Is this extra assumption universally true?" or "Can it never be false?" If you get 'yes' for the first question and 'no, never' for the second, accept it as definitely true? Otherwise, choose 'probably true'.

## **II. Definitely False or Probably False?**

This confusion may arise if the given inference is not directly stated in the passage and yet appears 'almost' definitely false to you. But since the related thing is not explicitly mentioned, you hesitate and think that even 'probably false' may be correct.

To avoid this confusion recheck your reasoning. If the opposite of the inference is not mentioned directly in the passage, then you must have assumed something 'extra' to come to this conclusion. Now ask yourself this question: "Is this assumption universally true?" or "Can it never be false?" If you get 'yes' for the first question, and 'no, never' for the second, then choose definitely false as your answer. Otherwise, pick probably false.

## **III. Data Inadequate or Probably True?**

This confusion arises when an inference is drawn indirectly from the passage. Since it is not explicitly mentioned, you think that the data are inadequate, and that sufficient information has not been provided to come to the conclusion. However, the inference appears

to you in tune with the general 'tone' of the passage and, hence, you are tempted to opt for probably true.

To avoid this confusion recheck your reasoning. You can declare an inference probably true, if with the help of the given passage and some extra assumption, the inference appears likely to be true. Thus you can somehow convince yourself that the inference is likely to be true.

On the other hand, you can declare that data are inadequate if no definite conclusion seems to be coming from the passage even with the help of some extra assumption. Thus, in this case, you cannot convince yourself that the inference is likely to be true or false.

[For instance, consider Q2 of previous passage. The passage never explicitly mentions what exactly the theories of Odgen and Williams were. Hence, you may choose 'data inadequate'. But the whole passage is about the possibilities of high-efficiency photovoltaic cells and the names of Odgen and Williams have been mentioned in the beginning. Thus the two scientists appear to be associated with the theory of high

efficiency of photovoltaic cells. Hence, the inference looks probably true.

On a closer look, the inference is probably true. We can make a reasonable assumption that the mentioning of the names of the two scientists is not without reason, that it is not irrelevant. If this be assumed, then the inference is likely to be true. Data inadequate would not be a correct choice.]

#### **IV. Data Inadequate or Probably False?**

This confusion arises when the inference is drawn indirectly from the passage. Since it is not explicitly stated, you think that the data are inadequate, that insufficient information has been provided to come to a definite conclusion. However, the inference appears to you in contradiction with the general ‘tone’ of the passage and, hence, you are tempted to choose probably false as your answer.

To avoid this confusion, recheck your reasoning. You can declare an inference probably false only if you can find a reasonable assumption, combining which with what is



stated in the passage the inference appears likely to be false. Thus you can somehow convince yourself that the inference is likely to be false. On the other hand, you should choose the choice 'data are inadequate' only if you cannot find any acceptable assumption which, combined with what is stated in the passage, may lead to some definite conclusion. In this case, you cannot convince yourself whether the inference is likely to be true or false.

### **The Summary**

In order to evaluate an inference, first of all check if it can be evaluated with the help of the passage directly. Check if this inference is directly supported or negated by something in the passage.

If an inference cannot be directly related with the passage, check if you can justify or contradict it with the help of an additional assumption. The only condition is that the assumption you make should be justifiable and universally acceptable.

You can also evaluate an inference with the help of some key words.

To avoid confusion between “definitely true” and “probably true”, you should check if the extra assumption you have made to evaluate the inference is justified. The same strategy can be used to avoid the confusion between the choices “definitely false” and “probably false.”

To avoid confusion between the choices “*probably true*” and “*data inadequate*”, check if it is possible to make an extra assumption to take the inference as “*probably true*”. If you can make a reasonable extra assumption, the answer would be *probably true*.” The same strategy could be used to avoid confusion between the choices “*probably false*” and “*data inadequate*.”