GMAT CAT Critical Reasoning

Introduction

You can think of critical reasoning questions as, essentially, mini reading comprehension questions. These questions tend to follow passages that are one paragraph in length. These questions primarily test the analytical and critical thinking skills that admissions committees so badly want to see in their applicants.

A college course in logic may help you with these questions, but it is certainly not a necessity. Many individuals who never took logic as undergrads have scored 750 or higher on the GMAT. With some preparation, you too can learn to think logically and ace these GMAT questions.

A nice added benefit to preparing yourself for critical reasoning GMAT CAT questions is that this preparation will also help you in your business school studies. Many of the same techniques used to answer these test questions will come in handy when you are asked to do case analyses. (This should be an extra incentive for those of you intent on pursuing consulting careers.)

Types of Critical Reasoning Questions

Critical reasoning questions will ask you to:

- 1. Strengthen an argument.
- 2. Weaken an argument.
- 3. Identify a parallel argument.
- 4. Identify the assumption.
- 5. Identify the inference.
- 6. Select the best conclusion.

Our Preferred Approach to Critical Reasoning Questions

- **1.) Read the question before reading the passage**. Know what you should be looking for before you begin reading the passage. You will want to approach the same passage a little bit differently, depending on whether you are asked to destroy an argument, or to find the best conclusion to the passage. Also and we feel we can not say this enough read the questions carefully. The test makers will deliberately include answer choices that give 'right' answers to wrong questions.
- **2.) Identify the passage's assumptions and conclusion**. This can be tricky. GMAT passages do not always present their conclusions in their final sentences. Sometimes they imply, rather than state, their conclusions. This is a great illustration of where our general tip of "practice, practice, practice" will come in handy. Look for these patterns:

A paragraph may start off with its *conclusion* in the first sentence, and then give several sentences to support that conclusion. This means you will not be able to look for transition words such as "consequently", "hence", and "as a result" that are commonly used to indicate the conclusion.

An *assumption* is the passage's "must have." In other words, if the assumption is not true, it follows that the conclusion is not true. We have a simple method for identifying assumptions. Read each sentence in the passage individually, and then ask yourself if the conclusion would still be true if this one sentence was incorrect.

- **3.)** Try to guess the correct answer before you even read the answer choices. Often your hunch will be correct. This will help you focus on selecting the best answer.
- **4.) Read every answer choice.** Don't settle for choosing the first one that seems right to you. You may find another answer choice that is even better than the one you initially selected. Eliminate the ones you know are wrong. Carefully analyze the remaining choices with a focus on identifying the one that presents the most relevant arguments and raises the most relevant issues.

Critical Reasoning Tips and Strategies

The most common type of critical reasoning question asks you to weaken an argument. The GMAT testers expect you to be able to identify one of the following 4 logic flaws:

- 1. Circular reasoning
- 2. Inaccurate cause-and-effect arguments
- 3. Sweeping generalizations
- 4. Unqualified "expert" opinions

These tips and strategies can help you answer these questions correctly:

- **1. Utilize process of elimination**. When the test taker is asked to identify the statement that does the best job of strengthening or weakening an argument, there is almost always at least one answer choice that will do the opposite. If you have read the question carefully, you will be able to quickly eliminate these choices.
- **2. Become comfortable at "working backwards" on these questions**. "Working backwards" inserting each answer choice into the text and and seeing if the passage still makes sense is an excellent technique to fall back on if you get stuck on a critical reasoning question. However, it can be time consuming. You may need to re-read a passage 5 times, inserting a different answer choice each time, before you find the choice that seems right to you.
- **3. Never choose an answer simply because it is true.** The answer choice must be a logical extension of the argument made in the passage.
- **4. Ignore decoys**. Often times, GMAT passages contain extraneous sentences and information. Learn to separate these decoys from the rest of the passage so they won't distract you from the content that is important.
- **5.** Avoid answer choices that are emotionally charged or 'over the top.' The correct GMAT answer choices are always emotionally neutral in tone, and moderate in reasoning.
- **6. Avoid answer choices that make absolute statements**. Absolute statements are those that use words such as "always" and "must." The test writers are very biased against these types of

statements. Hence, when you encounter an answer choice that makes an absolute statement, you will know that it can be safely eliminated.

DENIAL TEST. One of the types of critical reasoning questions you'll see on the GMAT is the assumption. An assumption bridges the gap between an argument's evidence and conclusion. It's a piece of support that isn't explicitly stated but that is required for the conclusion to remain valid. When a question asks you to find an author's assumption, it's asking you to find the statement without which the argument falls apart.

In order to test whether a statement is necessarily assumed by an author, we can employ the Denial Test. Simply deny or negate the statement and see if the argument falls apart. If it does, that choice is a necessary assumption. If, on the other hand, the argument is unaffected, the choice is wrong.

Consider the following example:

Allyson plays volleyball for Central High School. Therefore, Allyson must be over six feet tall.

You should recognize the second sentence as the conclusion and the first sentence as the evidence for it. But is the argument complete? Obviously not. The piece that's missing is the assumption, and you could probably rephrase this one pretty easily:

All volleyball players for Central High School are over six feet tall.

Now, let's use the Denial Test. What if it's not true that all volleyball players for Central High School are over six feet tall? Can we still logically conclude that Allyson must be taller than six feet? No, we can't. Sure, it's possible that she is, but it's also possible that she's not. By denying the statement, then, the argument falls to pieces; it's simply no longer valid. And that's our conclusive proof that the statement above is a necessary assumption of this argument. Critical Reasoning questions are one third of the Verbal section of the GMAT exam. These questions are designed to test one's logic and reasoning skills, particularly in evaluating arguments. The questions themselves could deal with almost any subject matter, and no familiarity with that subject matter is assumed or required.

This tutorial aims to give you the tools to find the answer that ETS what you to find which is just what you need to raise your score.

The GMAT's Critical Reasoning is intended to be an effective way of evaluating how people reason. However, the truth is that the logic in many of the questions is less than completely sound. There is definitely room for interpretation on many of these questions, judging from many examples taken from old GMAT tests. But there is little you can do about that - they make up the questions, they make up the rules.

You could cry about it. Go ahead, have a good cry. We will wait.

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Feel better? Good. Now let's take a look at how we can best this test to obtain the best score we possibly can.

A Critical Reasoning Problem is comprised of three main parts: the text, the question, and the five answer choices. We will deal with the different types of questions later.

Here's an example of a Critical Reasoning text:

A CEO of a major company noted a serious decline in worker productivity during the previous five years. According to a report done by an outside consultant, productivity dropped by 35% by the end of that period. The CEO has therefore initiated a plan to boost productivity by giving employees shares of the company as part of their pay package.

We can use the text above to show the four different parts of a Critical Reasoning text. **Conclusion/Main Idea** - Most problems have a central idea or thesis. This is almost always located in the sentence at the beginning of the text, or in the sentence at the very end. In this case, it is at the end of the passage:

The CEO has therefore initiated a plan to boost productivity by giving employees shares of the company as part of their pay package.

Notice the word *therefore* in that sentence. Words like *therefore*, *thus*, *hence*, and so usually tell us that this is the conclusion or the main idea. Let these words lead you to the main idea. **Premise** - Premises are the facts or evidence that support or lead to the conclusion. Unlike assumptions, they are explicit. Here is an example from the text:

A CEO of a major company noted a serious decline in worker productivity during the previous five years.

This premise helps the author lead to the conclusion or main idea of the text. **Assumption**- Assumptions are the facts that support the conclusion, like the premise does, but unlike the conclusion and premises they are not stated in the text: they are implicit. Here is what would be an example of an assumption for this particular Critical Reasoning problem:

Owning something or part of something obliges you work harder to make it succeed.

Note that this line is not in the text: it *cannot* be in the text if it is an assumption of the author. But it does give the argument as a whole some sense, and also supports the conclusion. **Supporting Information**- Like a premise, this is stated and explicit information embedded in the text, but unlike a premise, it does not support the conclusion. At best it supports a premise or provides further detail or information regarding a premise. From the text:

According to a report done by an outside consultant, productivity dropped by 35% by the end of that period.

This sentence supports the first sentence, the premise that notes that productivity has dropped. Supporting Information does not support the Conclusion or Main Idea, rather, it supports information that is already in the text.

The following strategies should help you with all the Critical Reasoning questions.

- 1. **KISS** Remember the old saying, Keep It Simple Stupid i.e. KISS? It also applies to Critical Reasoning. The key to Critical Reasoning is to focus on what the question is asking you to do, finding an answer choice that best answers the question. THAT'S ALL YOU SHOULD DO. Some books tell you to think of the 'scope' or 'parameters' of the argument. That's valid too it is basically saying the same thing. Just answer the question, do not read too much into it or let your own knowledge of a subject lead you to pick the wrong answer. KISS.
- 2. **Patterns** Look for particular types of questions, and then use the strategies appropriate for that type of question to choose the right answer. We will be looking at different types of Critical Reasoning Questions in the next section.

3. **Identify the Argument** - Sounds obvious? Nonetheless, many forget or do not know the importance of carrying out this absolutely essential task. In order to do this, imagine what would satisfy the question. After you have imagined what could satisfy the question, look for it down below in the five answer choices. Is it right there, or very similar to it, in answer choice B, for example? If so, then B probably is the answer. Read the other answer choices quickly, but this is probably the right answer. This strategy saves you some valuable time.

Of course, this strategy does not apply to *Supply the Conclusion* questions, but it does especially matter for *Weaken*, *Strengthen*, *Continue the Idea* and <EM.ASSUMPTION *questions*.

- 4. Silly Answer Choices There are ridiculous or nonsensical answer choices in many questions. If an answer choice seems against common sense, or makes no sense if the main idea is true, then you can probably eliminate it.
- 5. **Eliminate!** Rather than making a choice immediately, it is almost always better to eliminate down to one or two answers. Eliminate the ones you know do not make sense. So if you are left with two answer choices, and cannot decide between them, guess. At least you have eliminated it down to 50-50 odds. That's better than Las Vegas.

There are four types of questions that account for the majority of the questions in Critical Reasoning. You MUST know how to deal with these types of questions.

- 1. Weaken the Argument
- 2. Strengthen the Argument
- 3. Supply the Conclusion
- 4. Supply the Assumption

There are other types of questions but they are rare by comparison with these 4. We will encounter the other types of Critical Reasoning question in a later tutorial.

We will begin with Weaken the Argument.

This is probably the easiest and certainly the most common of Critical Reasoning question types, the Weaken the Argument question.

Here's how this type of question might look:

Some rental car agencies in the U.S. are now looking into installing satellite-guided navigation systems in their automobiles. The driver inputs the address on a keyboard, and the on-board computer calls out directions in American English, such as "You are now approaching Main Street". Rental car agencies hope to target foreign tourists and travelers unfamiliar with the United States.

Which of the following, if true, provides the greatest reason to suggest that the plan will not work?

- A These new computer navigation systems are expensive to install in many automobiles.
- B Some foreigners visiting the United States may not understand English.
- C Some people argue that the computer's voice sounds extremely cold and impersonal.
- D Many American citizens will also want to take advantage of the satellite-guided navigation systems.

Try to answer this Weaken the Argument question yourself before going on to see the explanation.

And here's how to answer the question:

- 1. Identify the argument. Remember, that's usually in the first or last line.
- 2. Anticipate what will be the answer, if possible. Imagine what would satisfy the question-what would weaken the argument. Then look for it in the answer choices.
- 3. Eliminate answer choices that do not weaken the argument.
- 4. If there are two or three answer choices left after the process of elimination, then choose!

Let's work through that example:

Some rental car agencies in the U.S. are now looking into installing satellite-guided navigation systems in their automobiles. The driver inputs the address on a keyboard, and the on-board computer calls out directions in American English, such as "You are now approaching Main Street". Rental car agencies hope to target foreign tourists and travelers unfamiliar with the United States.

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- C Some people argue that the computer's voice sounds extremely cold and impersonal.
- D Many American citizens will also want to take advantage of the satellite-guided navigation systems.
- E In the average U.S. city, paper maps and city guides are available in almost every hotel and gas station.

Explanation:

We want to weaken or attack the plan, so our first step is to identify it. The plan, aimed at foreigners in the U.S., is to install computer systems in rental cars that call out directions in American English. Remember, nothing in the GMAT is there by accident. Why foreigners? Why American English? Ah-ha, that's the key. We could probably anticipate that these travelers and tourists will not understand the directions! Therefore, the plan will not work.

Thus B looks tempting, but let's also try to get to the correct answer through the process of elimination. A says the system is expensive to implement in many cars. On the surface this seems to weaken the idea, but perhaps the investment in installing the system is worth it. Even though expensive, A does not tell us the plan will not work. In C the computerized voice is cold and impersonal, and while that might make people uncomfortable, it does not mean that the system will not do what it is supposed to do. In D, the fact that other U.S. citizens might also want the system does not weaken the idea for the rental car companies. And in E, the suggestion that there are already non-computerized guides readily available does not weaken the idea of having the computerized system – in fact, they could possibly complement each other.

B is the best answer because it basically states what we anticipated - that the plan will not work because people will not understand the computer's English.

The good news is that Strengthen the Argument questions are exactly the same as Weaken, except this time we want to support the main idea or argument.

Example

The city council of Nowheresville has proposed establishing tollbooths on all of the major routes into the city. The council's reasoning is that this fee will force many commuters to switch from private automobiles to the public transportation system.

Which of the following statements, if true, provides the best evidence that the city council's plan will be successful?

A Most of the citizens of Nowheresville support the new plan.

- B Several other cities have attempted to implement the scheme in the past, with mixed results.
- Currently the average private commuter car spends one hour and forty-five minute in the commute into the city.
- D A new study suggests that many commuters with cars would switch to public transportation if driving in the city became any more expensive.
- E The price of gasoline is projected to plummet in the next few months.

Try to answer this Strengthen the Argument question before checking the explanation.

Here's what to do:

- 1. Identify the argument. Remember, it's usually in the first or last line.
- 2. Anticipate what will be the answer, if possible. Imagine what would satisfy the question-what would strengthen the argument. Then look for it in the answer choices.
- 3. Eliminate answer choices that do not strengthen the argument.
- 4. If there are two or three answer choices left after the process of elimination, then: choose!

So let's find the best answer

The city council of Nowheresville has proposed establishing tollbooths on all of the major routes into the city. The council's reasoning is that this fee will force many commuters to switch from private automobiles to the public transportation system.

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- A new study suggests that many commuters with cars would switch to public transportation if driving in the city became any more expensive.
- E The price of gasoline is projected to plummet in the next few months.

Explanation

We want to first identify the argument, which is that that the tollbooth plan will make people take public transportation. We can anticipate that the correct answer will strengthen or support the plan. D best strengthens the idea that people will switch from private transportation if it becomes any more expensive, so it is a likely candidate for the right answer.

But let's eliminate answer choices. It could be argued that B and E actually weaken the likelihood of the plan working. If, as in B, other cities have attempted to do this and have had mixed results, then that is not a good reason to implement it in Nowheresville. E says that the price of gasoline will fall in the next few months, which means that the drop in price perhaps will be offset by the increase in the tolls, and therefore there will be no incentive to switch to public transportation. A suggests that most people support the plan, but that does strengthen the plan. C says that the average commuter spends an hour and forty-five minutes in his car, but that information does not support the idea. D is the correct answer.

In this type of question, you have to supply a conclusion from the premises given.

For example

Some studies indicate that alcohol advertisements on television cause people to increase their alcohol consumption. In Arcadia, however, where there has been a ban on alcohol advertising for the last ten years, alcohol consumption per capita is at least as high as in countries that do

not have such a ban in place.

Which of the following statements draws the most reliable conclusion from the information above?

- A People tend to consume more alcohol if they are exposed to alcohol advertisements than if they are not exposed to those advertisements.
- B Advertising has no effect on whether people consume more or less alcohol.
- C Advertising cannot be the only factor that determines an individual's consumption of alcohol.
- D Most people continued to consume alcohol after the ban was implemented.
- E If advertising for alcohol were allowed in Arcadia, it would be extremely effective.

Try to do the question before you go to the explanation.

- 1. Identify the premises of the argument.
- 2. Assume all the premises are true. Try to combine or link those premises. Is there an obvious conclusion that could be made from these premises?
- 3. Eliminate answer choices that don't deal with or are supported by ALL of the premises, or that don't make sense from the information given.
- 4. If there are two or three answer choices left after the process of elimination, then: choose!

Let us practice

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- C Advertising cannot be the only factor that determines an individual's consumption of alcohol.
- D Most people continued to consume alcohol after the ban was implemented.
- E If advertising for alcohol were allowed in Arcadia, it would be extremely effective.

Explanation

First, what are the premises? 1) alcohol ads increase alcohol consumption. 2) Arcadia has a ban on alcohol advertisements, and has the same level of alcohol consumption as countries that do not have a ban. Next, what can we conclude from these premises? We can conclude that advertisements cannot be the sole cause of alcohol consumption. Then, eliminate answer choices that don't deal with or are supported by ALL of the premises, or that don't make sense from the information given.

A basically supports the first premise, that alcohol advertising increases alcohol consumption, but that does not explain or deal with the second premise. B might tempt you, since it says that advertising has no effect on whether one consumes more or less alcohol, but that statement goes against the first premise. D and E both go beyond the scope of the argument. C is the correct answer because it deals with both premises, and can be assumed from both premises.

For most people, these questions are the real difficult ones! Very tough, and unfortunately, the Assumption problem is the type of question most open to interpretation. But we do what we can, Let us approach the question.

Example

New medical studies indicate that if the average employee improves his physical health, then his productivity also increases markedly. Company XYZ should therefore introduce mandatory exercise programs every morning in order to augment productivity.

The author assumes which of the following to be true?

- A The mandatory exercise programs will be successful in improving the physical health of the employees at XYZ.
- B Employees who take exercise programs at work are no more productive than are employees who take exercise programs outside of work..
- C Employees who exercise sleep better than employees who do not do so do.
- D Employees who exercise at work often complain of tiredness throughout the day.
- Employees often resist mandatory exercise programs, viewing them as intrusions on their privacy and on their labor rights.

See if you can find the author's assumption before continuing.

- 1. Identify the premises of the argument.
- 2. Identify the conclusion. Remember, that's usually in the first or last sentence of the text.
- 3. Identify the gap in the logic of the argument. What's missing or needed to make this argument convincing?
- 4. What's the new element or factor in the conclusion? The assumption will probably introduce it.
- 5. Go through each answer choice. Does it strengthen the conclusion? If not, then eliminate it.
- 6. Eliminate silly or nonsensical answer choices.
- 7. Choose! Don't waste time!

So let's solve this one

New medical studies indicate that if the average employee improves his physical health, then his productivity also increases markedly. Company XYZ should therefore introduce mandatory exercise programs every morning in order to augment productivity.

The author assumes which of the following to be true?

- A The mandatory exercise programs will be successful in improving the physical health of the employees at XYZ.
- B Employees who take exercise programs at work are no more productive than are employees who take exercise programs outside of work..
- C Employees who exercise sleep better than employees who do not do so do.
- D Employees who exercise at work often complain of tiredness throughout the day.
- Employees often resist mandatory exercise programs, viewing them as intrusions on their privacy and on their labor rights.

Explanation

The correct answer choice must fill the gap in the logic, and also support the conclusion. First we must identify the premise(s), and then the conclusion. The first premise in the text says that 1) improved physicality leads to 2) (the second premise) increased productivity. The conclusion states that therefore 1) the exercise program will lead to 2) increased productivity. There is a gap in the logic here. To correct this gap in the argument, we must say that 1) exercise program leads to 2) improved physicality which leads to 3) increased productivity. What is the new element in the conclusion? The part about the exercise program. So we must establish the link between the exercise program and the improved physicality.

We can also make eliminations. B says that employees who take exercise programs at work are no more productive than those who take them at work, which actually weakens the main idea and therefore is not a good assumption. Whether employees who exercise or not get more sleep has little bearing on whether the plan will work, so C is not a good answer. D states that employees who exercise at work often complain of tiredness throughout the day, which does not support the conclusion and thus should be eliminated. E says that employees often resist such programs, which also does not support the argument and can be discarded.

A, the answer, fills the gap in the logic nicely by stating that the mandatory exercise programs will be successful in improving the physical health of the employees at XYZ. It also supports and strengthens the conclusion, which is another requirement of the assumption. Additionally, it introduces the new element in the conclusion, the mandatory exercise program. Therefore, for all these reasons, A is the best answer.

This is a summary of all the strategies that you have learned for tackling Critical Reasoning questions. You might find it useful to print this summary and use it for reference.

General Strategies

These are the strategies that apply to **all** Critical Reasoning questions.

- 1. KISS. Keep things clear and simple.
- 2. Look for particular types of questions (for example Weaken the Argument), and then use the strategies appropriate for that type of question to choose the right answer.
- 3. Identify the Argument.
- 4. Eliminate silly or nonsensical answers.
- 5. Eliminate answer choices that do not answer the question.

For specific question types

Strategies for each different type of question.

Weaken the Argument questions

- 1. Identify the argument. Remember, that's usually in the first or last line.
- 2. Anticipate what will be the answer, if possible. Imagine what would satisfy the question-what would strengthen the argument. Then look for it in the answer choices.
- 3. Eliminate answer choices that do not weaken the argument.
- 4. If there are two or three answer choices left after the process of elimination, then choose!

Strengthen the Argument questions

- 1. Identify the argument. Remember, that's usually in the first or last line.
- 2. Anticipate what will be the answer, if possible. Imagine what would satisfy the question-what would strengthen the argument. Then look for it in the answer choices.
- 3. Eliminate answer choices that do not strengthen the argument.
- 4. If there are two or three answer choices left after the process of elimination, then choose!

Supply the Conclusion

- 1. Identify the premises of the argument.
- 2. Assume all the premises are true. Try to combine or link those premises. Is there an obvious conclusion that could be made from these premises?
- 3. Eliminate answer choices that don't deal with or are supported by ALL of the premises, or that don't make sense from the information given.
- 4. If there are two or three answer choices left after the process of elimination, then: choose!

Supply the Assumption questions

- 1. Identify the premises of the argument.
- 2. Identify the conclusion. Remember, that's usually in the first or last sentence of the text.
- 3. Identify the gap in the logic of the argument. What's missing or needed to make this argument convincing?
- 4. What's the new element or factor in the conclusion? The assumption will probably introduce it.
- 5. Go through each answer choice. Does it strengthen the conclusion? If not, then eliminate it. Eliminate silly or nonsensical answer choices.
- 6. Choose! Don't waste time!

This chapter is divided into two parts:

- I. Six Principles for Critical Reasoning Questions
- II. The Seven Main Types of Critical Reasoning Questions

I. Six Principles for Critical Reasoning Questions

Critical Reasoning questions typically involve an argument. To address Critical Reasoning questions, you must learn how to analyze logical arguments.

- A. Learn how to identify arguments
- **B.** Types of arguments
- C. Putting it into your own words
- D. Evaluate an argument
- E. Evaluate an argument's strength and validity
- F. Get an idea of the right answer
- G. Don't fall for traps from test writers

II. Typical Critical Reasoning Question Types

- **A. Must Be True Questions**
- **B.** Assumption Questions
- C. Strengthen and Weaken Questions
- **D. Main Point Questions**
- E. Paradox Questions

A. Learn how to identify arguments

Is the text an argument? An *argument* here doesn't mean a dispute or controversy. It means an attempt to provide a reason for believing something by citing something else. It is an attempt to show that something is true, or probably true, by appealing to something else, some reason or evidence, which indicates that it is true.

The following text includes an argument:

New evidence shows that the AIDS virus may not be as lethal as it has been thought to be and that some people may be able to develop a defense against it. The evidence involves an appreciable number of people who have been HIV positive for many years (some of them for twelve years or more). Lab tests show that the virus is present in their blood. But they have not developed any symptoms of AIDS. They continue to be in good health and show no signs of developing the disease. Some researchers estimate that as many as 5% of those infected by the virus may be in this category and that they will never develop the disease.

In this text a claim is made about how lethal the AIDS virus is. It may not be 100% lethal. Some people may be able to resist it, perhaps because of a natural immunity. And some evidence is cited to show that this claim is true. That evidence is the (alleged) fact that some people have had the AIDS virus in their system for many years and show no signs at all of developing the disease. It is plausible to think that the person who wrote that text intended to cite that fact as a reason for believing the claim about the lethality of the AIDS virus.

Premises and Conclusions

In an argument some **claims** are put forward in support of others. The claim that is being supported is the **conclusion**. The claims which are alleged to support the conclusion are the **premises**. There may be more than one conclusion in an argument, and often, there is more than one premise. In the argument above about AIDS, there is a closely related set of conclusions.

New evidence shows that the AIDS virus may not be as lethal as it has been thought to be and that some people may be able to develop a defense against it. In support of these conclusions, the author cites the (alleged) fact that some people have been infected with the virus for a long time without showing any signs of the disease itself. This latter assertion is the premise in this argument.

How do you identify premises and conclusions? Reliable clues are provided by certain key words, which are often used to identify premises and conclusions. The following words and phrases are quite often used to introduce conclusions:

So...

This shows that...

Therefore...

We can infer that...

Hence...

Consequently...

It follows that...

This indicates that...

For that reason, we may say...

These are phrases that introduce the premises of an argument:

The reason is that...

Because...

Since...

Evidence...

On the basis of...

It follows from...

In view of...

We may infer from...

When you are able to identify premises and conclusions, you may easily analyze how strongly the premises back up the conclusion. In many of the Critical Reasoning questions, there will be a gap between the premises and the conclusion--the assumptions. Your objective is to find the gaps (the assumptions) and use that knowledge to find the solution. For example, in the AIDS argument above, one of the unstated assumptions is that the evidence about AIDS is accurate.

Premises + **Assumptions** = **Conclusion**

w B. Types of arguments

B. Types of Arguments (If you have limited time to prepare, skip to C.)

Now that you can identify premises and conclusions, how are they structured into arguments?

Deductive and Inductive Arguments

Deductive arguments are arguments that show a tight connection between the premises and the conclusions. There is no possible way the conclusion could fail to be true if the premises are true. (That is not to say, of course, that the premises are true.) Arguments in mathematics and in pure logic are often of this sort: "If no one watered my plants during my vacation, they will all die. No one watered my plants during my vacation. Therefore, my plants have all died." The premises of that argument might possibly be false. But, if they are both true, then there is no way the conclusion can be false.

There are other arguments with a looser connection. If the premises are true, then the conclusion is likely to be true also; it would be surprising if the conclusion were false; we have good reason to think that the conclusion is true, and so on. These are the **inductive** arguments. The AIDS argument above is inductive. The conclusion of the argument is that it seems probable that in some way the disease has been successfully stalled. In both sorts of arguments, the premises support the conclusion if those premises are true. But if they are false, they provide no such support. Discovering that a premise is false, then, undercuts the force of both deductive and inductive arguments.

Because inductive arguments are not conclusive, they may be weakened (perhaps rejected entirely) even if we continue to recognize that their premises are perfectly true. If, for example, researchers were to identify a virus very similar to the AIDS virus, and if they discovered that the incubation period for this virus in chimpanzees often exceeded fifteen years, that discovery would seriously weaken the argument in the example. But it would not show that any of the premises of the original argument were false. It would not show that some people have not survived, and in good health, for twelve years after having been infected. It weakens the argument by introducing another possibility, that the AIDS virus may have a longer incubation period than previously thought plausible. Inductive arguments can also be strengthened by the introduction of new data. If it were discovered that there is a similar virus which infects chimpanzees, and for which many chimpanzees develop a resistance which enables them to live out a normal life span in good health, that would further bolster the conclusion that perhaps some humans can make a similar defense against AIDS.

w C. Putting it into your own words

C. Putting it into your own words

Now that you know how to break down arguments into premises and conclusions, you are able to translate a passage into your own words.

Each question is divided into two parts: the *stimulus* (the first part of the question that usually consists of an argument) and the *stem*, which asks a questions such as, "which of the following is an assumption of the paragraph above?" When you finish reading the stimulus, try to summarize in your mind what the argument in the stimulus is about (premises, conclusions, and assumptions). Most of the stimulus parts of the questions have a flaw that you can readily identify, such as a flawed assumption. When you put the argument in your own words, you can usually identify what the stem will ask before you even get to it. This process helps you identify the meaning of the stimulus. Usually the stimulus describes something very simple in a complicated manner, and putting it in your own words helps you to get a handle on what the passage means.

Apartment building owners argue that rent control should be abolished. Although they acknowledge that they would increase rents in the short term, owners argue that in the long term the rent increases would lead to greater profitability. Higher profits would lead to increased apartment construction. Increased apartment construction would then lead to a greater supply of residences and lower prices as the potential apartment residents have a better selection. Thus, abolishing rent control would ultimately reduce prices.

Try to express that complicated argument in your own words? Simple. Abolishing rent control will increase the supply of housing (premise); greater supply leads to lower prices (premise); and thus abolishing rent control leads to lower rents (conclusion). It is a supply/demand argument.

Once you put it into your own terms, the question becomes much easier to understand. w D. Evaluate an argument

D. Evaluate an argument

Now that you can break a stimulus into premises and conclusions and put the argument into your own words, how do you find errors in the arguments? The Usual Suspects: Common Logical Fallacies

We've identified several logical errors that commonly appear in the Critical Reasoning questions.

1. Circular Reasoning

Here, an unsubstantiated assertion is used to justify another unsubstantiated assertion, which is, or at least could be, used to justify the first statement. For instance, Joe and Fred show up at an exclusive club. When asked if they are members, Joe says "I'll vouch for Fred." When Joe is asked for evidence that he's a member, Fred says, "I'll vouch for him."

2. The Biased Sample Fallacy

The *Fallacy of the Biased Sample* is committed whenever the data for a statistical inference is drawn from a sample that is not representative of the population under consideration. The data drawn and used to make a generalization is drawn from a group that does not represent the whole.

Here is an argument that commits the fallacy of the biased sample:

In a recent survey conducted by Wall Street Weekly of its readers, 80% of the respondents indicated their strong disapproval of increased capital gains taxes. This survey clearly shows that increased capital gains taxes will meet with strong opposition from the electorate.

The data for the inference in this argument is drawn from a sample that is not representative of the entire electorate. Since the survey was conducted of people who invest, not all members of the electorate have an equal chance of being included in the sample. Moreover, persons who read about investing are more likely to have an opinion on the topic of taxes on investment different from the population at large.

3. The Insufficient Sample Fallacy

The *Fallacy of the Insufficient Sample* is committed whenever an inadequate sample is used to justify the conclusion drawn.

Here's an argument that commits the fallacy of the insufficient sample:

I have worked with three people from New York City and found them to be obnoxious, pushy and rude. It is obvious that people from New York City have a bad attitude.

The data for the inference in this argument is insufficient to support the conclusion. Three observations of people are not sufficient to support a conclusion about 10 million.

4. Ad hominen

One of the most often employed fallacies, ad hominen means "to the man" and indicates an attack that is made upon a person rather than upon the statements that person has made. An example is "Don't listen to my opponent; he's a homosexual."

5. The Fallacy of Faulty Analogy

Reasoning by analogy functions by comparing two similar things. Because they are alike in various ways, the fallacy is that it is likely they will share another trait as well. *Faulty Analogy* arguments draw similarities between the things compared that are not relevant to the characteristic being inferred in the conclusion.

Here's an example of a Faulty Analogy fallacy:

Ted and Jim excel at both football and basketball. Since Ted is also a track star, it is likely that Jim also excels at track.

In this example, numerous similarities between Ted and Jim are taken as the basis for the inference that they share additional traits.

6. Straw Man

Here the speaker attributes an argument to an opponent that does not represent the opponent's true position. For instance, a political candidate might charge that his opponent "wants to let all prisoners go free," when in fact his opponent simply favors a highly limited furlough system. The person is portrayed as someone that he is not.

7. The "After This, Therefore, Because of This" Fallacy (Post hoc ergo propter hoc)
This is a "false cause" fallacy in which something is associated with something
else because of mere proximity of time. One often encounters people assuming
that because one thing happened after another, the first caused it, as with "I
touched a toad; I have a wart. The toad caused the wart." The error in arguments
that commit this fallacy is that their conclusions are causal claims that are not
sufficiently substantiated by the evidence.

Here are two examples of the After This, Therefore Because of This Fallacy: Ten minutes after walking into the auditorium, I began to feel sick to my stomach. There must have been something in the air in that building that caused my nausea.

The stock market declined shortly after the election of the president, thus indicating the lack of confidence the business community has in the new administration.

In the first example, a causal connection is posited between two events simply on the basis of one occurring before the other. Without further evidence to support it, the causal claim based on the correlation is premature.

The second example is typical of modern news reporting. The only evidence offered in this argument to support the claim that the decline in the stock market was caused by the election of the president is the fact that election preceded the

decline. While it has been a causal factor, to argue that it is the cause without additional information is to commit the *After This, Therefore, Because of This Fallacy*.

8. The Either or Thinking

This is the so-called black or white fallacy. Essentially, it says "Either you believe what I'm saying, or you must believe exactly the opposite." Here is an example of the black or white fallacy:

Since you don't believe that the earth is teetering on the edge of destruction, you must believe that pollution and other adverse effects that man has on the environment are of no concern whatsoever.

The argument above assumes that there are only two possible alternatives open to us. There is no room for a middle ground.

9. The "All Things are Equal" Fallacy

This fallacy is committed when it is assumed, without justification, that background conditions have remained the same at different times/locations. In most instances, this is an unwarranted assumption for the simple reason that things rarely remain the same over extended periods of time, and things rarely remain the same from place to place.

The last Democrat winner of the New Hampshire primary won the general election. This year, the winner of the New Hampshire primary will win the general election.

The assumption operative in this argument is that nothing has changed since the last primary. No evidence or justification is offered for this assumption.

10. The Fallacy of Equivocation

The *Fallacy of Equivocation* occurs when a word or phrase that has more than one meaning is employed in different meanings throughout the argument.

"Every society is, of course, **repressive** to some extent - as Sigmund Freud pointed out, **repression** is the price we pay for civilization." (John P. Roche-political columnist)

In this example, the word repression is used in two completely different contexts. "Repression" in Freud's mind meant restricting sexual and psychological desires. "Repression" in the second context does not mean repression of individual desires, but government restriction of individual liberties, such as that in a totalitarian state.

11. Non Sequitor

This means "does not follow," which is short for *the conclusion does not follow from the premise*. To say, "The house is white; therefore, it must be big" is an example of the Non Sequitor fallacy. It may be a big house, but there is no intrinsic connection with its being white.

12. Argument ad populum

A group of kindergartners are studying a frog, trying to determine its sex. "I wonder if it's a boy frog or a girl frog," says one student. "I know how we can tell!" pipes up another. "All right, how?" asks the teacher, resigned to the worst. Beams the child: "We can vote."

This is *argumentum ad populum*, the belief that truth can be determined by more or less putting it to a vote. Democracy is a very nice thing, but it doesn't determine truth. Polls are good for telling you what people think, not whether those thoughts are correct.

w E. Evaluate an argument's strength and validity

E. Evaluate an argument's strength and validity

Now that you may identify arguments and are able to identify logical flaws, you may assess an argument's strength and validity.

More than simply "putting it in your own words," you need to evaluate an argument's persuasiveness. Actively read the stimulus. Always evaluate the argument and check for assumptions as you are reading the passage. Virtually every passage you read has some form of logical flaw. When you read the essay, make sure to be actively seeking those flaws. Read the stimulus with a specific purpose of finding assumptions and errors in logic.

w F. Get an idea of the right answer

F. Get an idea of the right answer

If you can identify an argument and assess its strengths, you may come up with a right answer after reading the stem.

When you finish reading the stimulus and the stem and you have analyzed everything using the techniques above, you can usually come up with a pre-phrase of the right answer before even getting to the answer choices. Coming up with the right pre-phrase of the answer is only half of the battle, however. From the five answer choices, you have to pick the answer that most closely resembles the your pre-phrased answer. The potential answers are difficult to read and contain traps. If you have a general idea of the answer going into the answer choices, you are in a good position to correctly identify the answer. Test takers should not be discouraged if they cannot come up with a pre-phrase. Some questions are difficult and an immediate answer will not jump out at you.

Don't fall for traps from test writers

If you have gone as far as to be able to identify and assess an argument, don't fall into a trap when picking an answer.

Test writing is an extremely time-consuming task. One of the most difficult parts of test writing is generating the "junk" wrong answer choices. Test writers have an easy way out. On nearly every question you will see wrong answers that are either the **trick opposites** or **scope traps**. These wrong answers do not do much to test ability; they are simply there to fool inexperienced and unskilled test takers. Test writers like to use them because they take a few seconds to write and fool most students, thereby making the question "harder."

On the positive side, a skilled test taker may quickly identify these two trap questions types. Most of the wrong answers in any given Verbal test will be one of the two types of junk answers. If you can identify the junk answer choices, you may thereby eliminate wrong answers and increase your chances of getting the right answer. Below we have several examples.

Trick Opposites

This is an underhanded trick from test writers that does little to improve the quality of the test. This trap involves contradicting the question stem, the end of the question that asks you what to look for. Here are examples:

- 1. "All of the following may be inferred from the passage EXCEPT," then give a few borderline answers and one answer that absolutely may be inferred from the passage (which someone picks automatically if he forgot the "EXCEPT").
- 2. Ask for an assumption in an argument, then give an answer choice that is a summary.
- 3. "Which of the following weakens the argument above," then give an answer choice that obviously strengthens the argument.

These tricks are intended to catch students who rush through questions. However, you may turn this tactic to your advantage if you read the question stems slowly and carefully. Then you may identify the trick opposites, eliminate them as answer choices, and increase the chances of getting the right answers.

The Scope Trap (this section is a repeat from the Reading Comprehension section)

When it comes to determining the scope of a passage, you need to understand what we mean by "scope". Think of scope as a narrowing of the topic. If you've found the main point, you must also identify what is in the range of the argument. Scope is related to more than just the general topic being discussed, it is the narrowing of the topic. Is the article about graduate-school admissions, MBA admissions, or helping international students get into the business school program of their choice? Each step represents a narrowing of the scope.

Scope is one of the most important concepts for doing well on the verbal section, particularly for high scorers. Why? Put yourself in the position of the test question writers. They must write difficult questions. Only one of the five choices is correct; the rest are junk answers. They have to write questions that a certain number of students will get wrong and they have to make up "junk" answers to fool people. The issue of scope solves both problems for test question writers: it allows them to easily generate wrong answers, and it makes the questions harder because scope is a challenging issue. Most critical reasoning or reading comprehension questions have junk answers that are "outside of the question's scope."

Some common examples of scope junk answers are choices that are too narrow, too broad, or literally have nothing to do with the author's points. Also, watch for and eliminate choices that are too extreme to match the argument's scope; they're usually signaled by such words as *all, always, never, none*, and so on. Choices that are in some way qualified are usually correct for arguments that are moderate in tone and contain such words as *usually, sometimes, probably*.

all always never only

words that signal answers that are too strong and therefore usually outside the scope of an argument.

Example:

Some scientists believe that carbon dioxide induced global warming may increase the number of hurricanes in the future and their severity.

What if someone inferred from that statement that

All of this season's severe hurricanes were caused by global warming. That statement would be outside of the scope of the original argument. The inference made is outside the scope of the argument. The argument is not that strong. What about this statement:

Some of this season's storms may have been caused and exacerbated by global warming.

This statement is more measured and is within the scope of the original argument.

- In general, these phrases indicate statements that are outside of the scope of an argument: **always, never, none.** Usually on the test, arguments aren't that strong, so answers with extreme language are usually outside the scope of the argument.
- These phrases tend to indicate that a phrase is within the scope of an argument: *usually*, *sometimes*, *probably*.

Strategy: If the question asks "which of the following is NOT an assumption of the argument" or "which of the following does NOT describe an argument made in the passage above," the answer will often be the one with extreme language.

Here is a critical reasoning question that illustrates scope.

Apartment building owners argue that rent control should be abolished. Although they acknowledge that they would increase rents in the short term, owners argue that in the long term the rent increases would lead to greater profitability. Higher profits would lead to increased apartment construction. Increased apartment construction would then lead to a greater supply of residences and lower prices as the potential apartment residents have a better selection. Thus, abolishing rent control would ultimately reduce prices.

Name an assumption made by the owners: (hint: this is a difficult question, but you may eliminate 4 of the 5 answers as outside the scope of the argument).

- a) Current residents of rent control apartments would be able to find new apartments once their rents increased.
- b) The fundamental value of any society is to house its citizens.
- c) Only current apartment owners would profit significantly from market deregulation.
- d) New apartment construction will generate a great number of jobs.
- e) The increase in the number of apartments available would exceed the number of new potential apartment residents.

Which possible answers are outside of the scope? The scope is the argument that deregulation will increase supply and lower prices. "Name an assumption" means find a direct assumption of that supply/demand argument.

- a) Current residents of rent control apartments would be able to find new apartments once their rent increased--is this outside of the scope? Well, this sentence expresses a nice sentiment for the welfare of renters, but it has nothing to do with our argument, which is about a supply/demand dynamic.
- b) The fundamental value of any society is to house its citizens. Is this outside of the scope? Again, nice sentiment, but this does not directly tie into the argument.
- c) Only current apartment owners would profit significantly from market deregulation. Is this outside of the scope? The profitability of the apartment owners is not directly relevant. Note: of course if the profitability of the apartments increases, it would help increase supply because other companies would be drawn into the market, thus increasing supply. Indeed this looks good and as if it is an assumption, but "Only current apartment owners" is too limiting. How about newer apartment owners? The profits made by "only current owners" is not the issue at hand; it is the prices of apartments. Again, as previously mentioned, answer choices that use words such as "only" tend to be outside the scope of the question. Here "only" is too restrictive and allows you to eliminate this answer choice.
- d) New apartment construction will generate a great number of jobs. This is clearly outside of the scope.

e) The increase in the number of apartments available would exceed the number of new potential apartment residents. Aha! This is an argument about supply and demand, and this is an answer about supply and demand. This is clearly within the scope of the argument, and it is the correct answer. If demand rose with new apartment construction, then prices would not decline, invalidating their argument.

Optional Strategy: Some students prefer to read the question stem **first** and then read the stimulus itself. This lets the user look more specifically for what the question is asking and identify the question type beforehand. You may choose to this strategy. Many test prep companies recommend this approach. Use your own preference.

II. Typical Critical Reasoning Question Types

- A. Must Be True Questions
- B. Assumption Questions
- C. Strengthen and Weaken Questions
- D. Main Point Questions
- E. Paradox Questions
- F. Reasoning Questions

A. Must Be True Questions

Must Be True Questions are extremely common. These are the typical Must Be True Questions:

- If the statements above are true, which of the following must also be true?
- Which of the following is [implied, must be true, implicit, most reasonably drawn] in the passage above?
- Which of the following conclusions can most properly be drawn if the statements above are true?
- Which of the following inferences (**inference** means the same thing as "must be true" on the test) is best supported by the statement made above? (**Conclusions** differ from **inferences** in that conclusions are the result of premises and inferences are something that must be true.)

How to tackle Must Be True Questions:

Read the stimulus and look for the argument.

Note that Must Be True questions may not be an argument. They may just be a series of facts. Nevertheless, try to find the argument.

MUST BE TRUE questions should always be tackled using POE (process of elimination). Go through every answer choice systematically and check if it is ALWAYS true. If you can find a situation where it is not true, eliminate it. Gradually eliminate answer choices until you have one left.

SAMPLE OUESTION

Every store on Main Street in Summitville has an awning, and all of these awnings are either green or red. If the statement above is true, which one of the following must also be true?

Some awnings in Summitville are green.

If a store in Summitville does not have an awning, then it is not on Main Street.

If a store in Summitville has a red awning, then it is on Main Street.

- a) I only
- b) II only
- c) I and II only
- d) I and III only
- e) I, II, and III

Explanation: Note that this question is not an argument. Statement I may not be true: the question states that all of the awnings on Main Street are either green or red, but this does not preclude the possibility that all of the awnings on Main Street are red. Statement III may not be true either: the question states that every store on Main Street has either a red awning or a green awning, but this does not preclude the possibility that a store on some other street has a red awning. Statement II must be true: if every store on Main Street has an awning, then a store without an awning cannot be on Main Street. The correct answer is B.

 $\square \square B$. Assumption Questions

B. Assumption Questions

An assumption is an unstated premise that supports the author's conclusion. It's the connection between the stated premises and the conclusion. An assumption is something that the author's conclusion depends upon. Assumption questions are extremely common and have stems that look like this:

- Which of the following most accurately states a hidden assumption that the author must make in order to advance the argument above?
- Which of the following is an assumption that, if true, would support the conclusion in the passage above?

How to approach Assumption Questions

Look for gaps between the premises and the conclusion. Ask yourself why the conclusion is true. Before you progress to the answer choices, try to get feel of what assumption is necessary to fill that gap between the premises.

Beware of extreme language in the answer choices of assumption questions. Assumptions usually are not extreme. "Extreme" answer choices usually contain phrases such as always, never, or totally.

Here is an example:

Apartment building owners argue that rent control should be abolished. Although they acknowledge that they would increase rents in the short term, owners argue that in the long term the rent increases would lead to greater profitability. Higher profits would lead to increased apartment construction. Increased apartment construction would then lead to a greater supply of residences and lower prices as the potential apartment residents have a better selection. Thus, abolishing rent control would ultimately reduce prices.

Express that complicated argument in your own words.

Premise 1: Abolishing rent control will increase the supply of housing (premise).

Premise 2: *Greater supply leads to lower prices (premise)*.

Conclusion: Abolishing rent control leads to lower rents (conclusion). It is a supply/demand argument.

Try to find gaps between premises.

Look at premise 1: *Abolishing rent control will increase the supply of housing.*

This premise seems reasonable. Higher profits draw increased supply.

Look at premise 2: *Greater supply leads to lower prices*.

This is a supply/demand argument; greater supply leads to lower prices.

However, there is something missing: supply and demand require a discussion of demand. Indeed, demand is missing; that is the hidden assumption.

SAMPLE QUESTION

There are many reasons why individuals want to run their own businesses. Some foresee more personal satisfaction if they are successful in launching their own business, while others are interested mainly in the prospect of larger financial rewards. Since the late 1970s and early 1980s, tax regulations and other changes have encouraged increasing numbers of venture capitalists and entrepreneurs to start new enterprises. Since 1980, some one-half million new ventures have been started. Not all have succeeded, of course.

The above statement makes which of the following assumptions?

- a) Success in starting a new business depends in large part on sound financial planning.
- b) Social incentives motivate investors just as much as financial rewards.
- c) Financial incentives are associated with new business starts.
- d) Most new business ventures succeed initially but fail later on.
- e) Venture capitalists are motivated by non-monetary gains.

Explanation: While personal satisfaction is a motivating factor, the statement shows that since 1980, business starts increased along with a set of tax changes, promoting financial gains. (B) is the second best answer. However, it cannot be inferred that social motives are just as strong as the financial motive, given that the passage states that tax regulations motivated increasing numbers of entrepreneurs to invest. Answer choice (A) may be correct, but there is nothing in the passage to substantiate it. Choice (D) may be eliminated because of the word "most." There is no evidence in the passage to support answer choice (E). (C) is the correct answer.

□ □ C. Strengthen and Weaken Questions

C. Strengthen and Weaken Questions

Assumptions connect premises to conclusions. You may strengthen or weaken an argument by strengthening or weakening the assumptions. Here are some examples of Strengthen/Weaken question stems:

Strengthening:

- The conclusion would be more properly drawn if it were made clear that...
- Which of the following, if true, would most strengthen the conclusion drawn in the passage above?
- The argument as it is presented in the passage above would be most strengthened if which of the following were true?

Weakening:

- Which of the following, if true, most seriously weakens the conclusion drawn above?
- Which of the following, if true, would provide the strongest evidence against the above?
- Which of the following, if true, casts the most serious doubt on the conclusion drawn above?

How to approach Strengthen and Weaken Questions

- 1. Read the argument, find the conclusion, and identify the premises.
- 2. Identify assumptions.
- 3. Eliminate answer choices that do not work. Eliminate answer choices that do not strengthen/weaken the assumptions as the question asks.

Strategy: on most other verbal questions, you eliminate potential answers that use strong language. The exception are the strengthen/weaken questions. On these questions, extreme answers (using words such as only, the most, extremely) have an increased chance of being correct. The reason? Extreme answers will have a more powerful weakening/strengthening effect on assumptions.

4. The final answer that remains is the correct answer.

SAMPLE QUESTION

1) The postal service is badly mismanaged. Thirty years ago, first-class letter delivery cost only three cents. Since then, the price has increased sevenfold, with an actual decrease in the speed and reliability of service.

All of the following would tend to weaken the conclusion of the argument above EXCEPT:

- a) The volume of mail handled by the postal service has increased dramatically over the last thirty years.
- b) Unprecedented increases in the cost of fuel for trucks and planes have put severe upward pressures on postal delivery costs.
- c) Private delivery services usually charge more than does the postal service for comparable delivery services.
- d) The average delivery time for a first-class letter three decades ago was actually slightly longer than it is today.
- e) The average level of consumer prices overall has increased fourfold over the last thirty years.

Explanation: the conclusion here is that the postal service is poorly managed. We are looking for something that would not weaken the argument, in other words, something that suggests incompetent management, something that **doesn't excuse** the post office's poor performance.

Choice a) *The volume of mail handled by the postal service has increased dramatically over the last thirty years*. This would seem to excuse the poor service/price because the service has had to overcome a massive increase in volume.

Choice b) *Unprecedented increases in the cost of fuel for trucks and planes have put severe upward pressures on postal delivery costs*. This would seem to excuse the poor service/price because costs have increased dramatically.

Choice c) *Private delivery services usually charge more than does the postal service for comparable delivery services*. This would seem to excuse the poor service/price because other services are not as efficient.

Choice d) *The average delivery time for a first-class letter three decades ago was actually slightly longer than it is today*. This shows they have made improvements in service, suggesting that the postal service isn't all that bad after all.

Choice e) The average level of consumer prices overall has increased fourfold over the last thirty years. Since the price of postage has increased seven times over, this suggests that postal prices have increased at a rate much quicker than inflation. Thus, choice E suggests that there is price gouging and does support the original argument, making this the correct answer.

□ □ D. Main Point Questions

D. Main Point Questions

In MAIN POINT questions, you have to identify the conclusion of an argument. You are trying to find the author's point and should approach this question in a similar way to the reading comprehension main point questions. They come in several different formats:

- The main point of the passage is that...
- Which of the following statements about... is best supported by the statements above?
- Which of the following best states the author's conclusion in the passage above?
- Which of the following conclusions can be most properly drawn from the data above?

The conclusion of arguments in Main Point questions is usually not directly stated. To find the conclusion, identify the premises and then identify the conclusion drawn from the premises. Main Point questions differ from the other Critical Reasoning questions in that the argument in the stimulus is usually valid. (In most other Critical Reasoning questions the reasoning is flawed.)

How to approach Main Point Questions:

Analyze scope: main point junk answers will typically go outside the direct scope of the passage. Be careful to look directly at the scope of the question. Main Point answers must be within the scope of the passage. Your opinions or information outside of the passage are always outside of the scope.

Knock out answers with extreme wording. Main Point answers typically do not use *only*, *always*, *never*, *best* or any strong words that leave little wiggle room. The right answers on Main Point questions will generally use more qualifiers and less extreme language.

Use the process of elimination. Main Point questions typically have two or three good answers that are semi-plausible. The best way to tackle these questions is to gradually eliminate the possible answers until you have one or two and then choose the last one by scope.

SAMPLE OUESTION

Although Locke has been hailed as a giant figure in European intellectual history, his ideas were largely borrowed from his predecessors, now unfairly neglected by historians. Furthermore, Locke never wrote a truly great book; his most widely known works are muddy in style, awkwardly constructed, and often self-contradictory.

With which of the following would the author most likely agree?

- a) Locke made use of ideas without acknowledging his predecessors as the sources of those ideas.
- b) Current historians are re-evaluating the work of Locke in the light of present-day knowledge.

- c) Locke's contributions to the development of European thought have been greatly exaggerated.
- d) Historians should reexamine Locke's place in European intellectual history.
- e) Although Locke's ideas were important, his way of expressing them in writing was sadly inadequate.

Explanation: The author makes two assertions about Locke: that his ideas were not original and that his books were not very good. On the basis of these assertions, the author concludes that Locke's reputation as an intellectual giant is undeserved. Choice (C) accurately summarizes this conclusion. Choice (A) focuses on a subsidiary point, not the main idea; moreover, it makes an assumption unsupported by the passage namely, that Locke did not acknowledge the sources of his ideas. Choice (B) is wrong because although the passage clearly indicates that the author is "re-evaluating" Locke's work, it does not suggest that "current historians" in general are doing so. Similarly, (D) implies that the author recommends that other historians re-examine Locke. Since no recommendation exists in the argument, Choice (C) is the only option.

SAMPLE QUESTION

Opening a retail business in Kosovo is not inadvisable, despite what critics of the plan may say. Eighteen years ago we opened a construction business in Beirut during an invasion, and that location has been generating profits ever since. Which of the following is the author of the above argument trying to imply? a) The proposed retail store can make money despite being in the middle of a war zone.

- b) Wars are profitable for retail.
- c) Kosovo is not as politically unstable as Beirut.
- d) Opponents of a new construction company in Kosovo are probably biased.
- e) The proposed company in Kosovo will do better than the construction company in Beirut.

The author is using his prior experience to make a generalization. If he thought wars were profitable, he would be more encouraging of the venture instead of "not inadvisable." (B) is a matter of degree; he is implying that war is not bad for business, but he is not arguing that war is good for business. (A) is the correct answer.

Strategy: This question illustrates a point that will undoubtedly frustrate students with a poor grasp of the English language. This question does not ask you to assess a logical argument, but to measure the degree of enthusiasm for an argument. Measure the tone and strength an author puts into his point of view when assessing questions, particularly when the question asks you to find the author's conclusion. Students with a poor grasp of the English language should move very carefully through these Main Point questions to carefully assess the writer's viewpoint and his enthusiasm in expressing it.

□ □ E. Paradox Ouestions

E. Paradox Questions

These questions present you with a paradox, a seeming contradiction in the argument, and ask you to resolve it or explain how that contradiction could exist. Paradox questions are rare and more common at the higher skill levels. Here are some examples of the ways in which these questions are worded:

> • Which of the following, if true, would help to resolve the apparent paradox presented above?

• Which of the following, if true, contributes most to an explanation of the apparent discrepancy described above?

How to approach paradox questions

- 1. Read the argument and find the apparent paradox, discrepancy, or contradiction.
- 2. State the apparent paradox, discrepancy, or contradiction in your own words.
- 3. Use POE (process of elimination). The best answer will explain how both sides of the paradox, discrepancy, or contradiction can be true. Eliminate answers that are out of scope.

SAMPLE QUESTION

Inflation rose by 5.1% over the 2nd quarter, up from 4.1% during the first quarter of the year, and higher than the 3.3% recorded during the same time last year. However, the higher price index did not seem to alarm Wall Street, as stock prices remained steady.

Which of the following, if true, could explain the reaction of Wall Street?

- a) Stock prices were steady because of a fear that inflation would continue.
- b) The President announced that he was concerned about rising inflation.
- c) Economists warned that inflation would persist.
- d) Much of the quarterly increase in the price level was due to a summer drought's effect on food prices.
- e) Other unfavorable economic news had overshadowed the fact of inflation. Explanation: This is a paradox because the high inflation report would seem to indicate that the stock market should go down. A fear that inflation would continue (A), an announcement by the president that he was concerned about inflation (B), economists' warnings about inflation (C), and other unfavorable economic news (E) would all tend to cause stock prices to decline and cause alarm on Wall Street. What we are looking for instead is an explanation which suggests why a high-inflation report would not spook the markets. (D) is most appropriate. If most of the quarterly inflation was due to a rise in food prices caused by a drought, then other prices rose less or no more than in the last quarter. Since the drought is probably a temporary phenomenon, it may be expected that inflation will decline next quarter. Thus, there is no cause for alarm on Wall Street, and the high-inflation report should not scare the equity markets.

$\Box \Box F$. Reasoning Questions

F. Reasoning Questions

Reasoning questions ask you to describe how the argument was made, not necessarily what it says. Here are some examples of the ways in which these questions are worded:

- How does the author make his point?
- A major flaw in the argument above is that it...
- A's response has which of the following relationships to B's argument?

How to approach Reasoning Questions

- 1. Read the argument and find the conclusion.
- 2. State the reasoning in your own words. Describe how the author gets from the premises to the conclusion.
- 3. Use POE. The best answer will describe the reasoning used in the argument. Eliminate answer choices that don't match the reasoning used in the argument. SAMPLE QUESTION

There is a piece of folk wisdom expressed in the saying, "If it is not broken, don't fix it." A factory manager who accepted that saying would, on that account, be least likely to:

- a) agree to union demands, in the interest of safety, for better lighting in the stairwells and storage areas.
- b) respond to the difficulty of retaining skilled electronic technicians by establishing an on-site day-care center for small children.
- c) order the immediate replacement of windows broken in a strike.
- d) replace the quality control supervisor after receiving several complaints about defective units in recent shipments from the factory.
- e) institute a program of preventive maintenance for major pieces of production machinery.

Explanation: The point of the proverb "If it is not broken, don't fix it" is that tampering with something which is not an urgent problem is unnecessary. All of the alternatives involve the manager's making some change or taking some action. But the first four represent the manager's action as being a response to a particular existing problem. They are not against the spirit of the proverb. But preventive maintenance, over-hauling the machine before it breaks down, seems to be just what the proverb advises against.(E) is the correct answer.

Summary: II. Typical Critical Reasoning Question Types

- **A. Must Be True Questions**
- **B.** Assumption Questions
- C. Strengthen and Weaken Questions
- **D. Main Point Questions**
- E. Paradox Questions

Extra Questions >>

Extra Questions

- 1. Former prisoners of Japanese internment camps seeking monetary reparations from the government are often told, "There is neither wealth nor wisdom enough in the world to compensate in money for all the wrongs in history." Which of the following most weakens the argument above?
- A) Prior wrongs should not be permitted as a justification for present wrongs.
- B) Even though all wrongs cannot be compensated for, some wrongs can be.
- C) Since most people committed wrongs, the government should compensate for wrongs with money.
- D) Monetary reparations upset social order less than other forms of reparation.
- E) Since money is the basic cause of the wrongs, should it not be the cure?
- 2.

It is a myth that U.S. workers are pricing themselves out of the market. The wages of U.S. manufacturing workers increased at a slower rate in the 1970's than those of workers in other

major countries. Between 1970 and 1980, pay increased 489% in Japan and 464% in Germany, compared to 128% in the United States. Even though these countries experienced faster productivity growth, their unit labor costs still rose faster than in the United States. During the 1970's, unit labor costs rose 192% in Japan, 252% in Germany, and only 78% in the United States.

According to the above passage:

- A) unit labor costs in the 1970's were higher in Japan than they were in Germany or the United States
- B) the wages of U.S. workers need to be increased to be consistent with other countries.
- C) U.S. workers are more productive than Japanese or German workers
- D) the wages of U.S. workers in manufacturing increased at a slower rate in the 1970's than the wages of workers in Japan or Germany
- E) Workers in Japan and Germany work harder than workers in the U.S., and their wages have increased accordingly.
- 3. The Museum of Modern Art in New York City contains several automobiles. Automobiles are means of transportation and are therefore not art. The automobiles should not be in the collection. Which of the following best underlies the reasoning in the argument above.
- (A) The automobiles will not be used as transportation because they are in a museum, so they can be counted as art.
- (B) Many features of automobiles, like fins, serve no practical purpose and therefore cars can be counted as art
- (C) A true artist works without commercial concerns.
- (D) Art must be designed without pragmatic utility.
- (C) The automobile industry has excessive costs because of focusing on design rather and cost and pragmatism.
- 4. Time and again it has been shown that students who attend colleges with low faculty/student ratios get the most well-rounded education. As a result, when my children are ready to attend college, I'll be sure they attend a school with a very small student population. Which of the following, if true, identifies the greatest flaw in the reasoning above?
- A) A low faculty/student ratio is the effect of a well-rounded education, not its source.
- B) Intelligence should be considered the result of childhood environment, not advanced education.
- C) A very small student population does not by itself, ensure a low faculty/student ratio.
- D) Parental desires and preferences rarely determines a child's choice of a college or university.
- E) Students must take advantage of the low faculty/student ratio by intentionally choosing small classes.

5.

Enrollment in computer training programs tends to be high in a strong economy and much lower during weak economic times. How individuals view the likelihood of future job availability, therefore, affects people's willingness to pass up immediate their current employment opportunities in order to invest in career-related training. The argument above assumes that:

- A) those who enroll in computer training schools during a strong economy help increase the economy's strength.
- B) computer training programs admit fewer students during recessions.
- C) perceptions of the likelihood of job availability are related to the state of the economy.
- D) the perceived likelihood of job availability has decreased in recent years.
- E) all those who avoid computer training school during an economic slump do so because of the perceived lack of future jobs.
- 6. In Los Angeles, a political candidate who buys saturation TV advertising will get maximum name recognition. The statement above logically conveys which of the following?
- A) TV advertising is the most important factor in political campaigns in Los Angeles.
- B) Maximum name recognition in Los Angeles will help a candidate to win a higher percentage of votes cast in the city.
- C) Saturation TV advertising reaches every demographically distinct sector of the voting population of Los Angeles.
- D) For maximum name recognition a candidate need not spend on media channels other than TV advertising.
- E) A candidate's record of achievement in the Los Angeles area will do little to affect his or her name recognition there.

7.

The rate of car theft in New York City has increased 19% from 2001. The blame for this rests with the soft-on-crime judges the new administration has appointed. The argument above would be weakened if it were true that

- A) murders in this city has also increased by over 25 percent in the last year.
- B) polls show that 65 percent of the population in this city opposes the death penalty.
- C) 35 percent of the police in this city have been laid off in the last year due to budget cuts.
- D) the city has hired 25 new judges in the last year to compensate for deaths and retirements.
- E) 85 percent of the other cities in the nation have lower crime rates than does this city.
- 8. The increase in the number of false new stories revealed to be false serves to strengthen the argument that the media company CEO's first priority is audience size over reporting the truth. Local TV stations even have teams to identify false stories. The argument above assumes that:
- A) the media company's CEO decides what stories are broadcast.
- B) news stories exposed as fabrications are a recent phenomenon.
- C) every news story must be factually verifiable.
- D) fact checking is more comprehensive for small news organizations than major ones.
- E) Until last year, news companies did not even admit to broadcasting fictional stories.
- 9. Beavers use twigs to construct dams. Different regional populations of beavers will use different techniques for constructing dams. Researchers studying beaver construction techniques have found that regional populations of beavers use different construction techniques.

Researchers have concluded that these building techniques are culturally based rather than genetic. Which of the following, if true, would most strengthen the conclusion drawn by the researchers?

- (A) Studies have shown that beavers are nearly as intelligent as dogs.
- (B) Young beavers cannot build dams alone and carefully mimic how their parents build them.
- (C) The dams built vary in their effectiveness in holding back water levels depending on a region's rainfall level.
- (D) Beaver populations are often located in mountainous regions that isolate population groups.
- (E) The dam construction is primarily based on the water flow rates in specific regions.
- 10. All biology professors, except for Simmons, are Darwinists. From which of the following can the statement above be most properly inferred?
- A) Except for Simmons, if someone is a Darwinist biology professor, then he or she is a biology professor.
- B) Simmons is the only non-biology professor who is an darwinist.
- C) If a biology professor is an Darwinist, then he or she is a biology professor, as long as he or she is not Simmons.
- D) Simmons is not an Darwinist biology professors.
- E) Aside from the biology professors Simmons, if someone is a biology professor, then he or she is a Darwinist.
- 11. The judge told the criminal defendant, "You are consistently deceitful and cannot be trusted. Once you begin speaking honestly, I will begin believing you." Which of the following is assumed by the Judge's statement?
- A) The judge has explained what is wrong about lying.
- B) The judge has determined that her daughter knows what a lie is.
- C) The judge knows when the daughter has been truthful.
- D) The judge is routinely truthful with her daughter.
- E) The judge believes her daughter ultimately will tell the truth.
- 12. The widespread use of antibiotics has two negative effects. Antibiotics use can produce antibiotic-resistant strains because the small numbers of bacteria that aren't killed by the antibiotic are the ones that survive and breed. In addition, antibiotics can kill the body's natural microbes that help fight off foreign bacteria. Which of the following practices can help ameliorate these negative consequences and benefit patients?
- (A) Using antibiotics derived from natural products
- (B) Produce stronger antibiotics
- (C) Steadily increase dosage if the results begin to decline
- (D) Do not give the antibiotic to all people who are sick
- (E) Changing the antibiotics used every few weeks

- 1. (B) The argument states that there can be no compensation for "all the wrongs in history," but the argument is about just one wrong of history. Even though all wrongs cannot be compensated for, some wrongs can be.
- 2. (D) Answers A and C are incorrect because they are simply not supported by the facts stated in the passage. Answer B is not necessarily true because the passage compares wages in terms of percentage increases, not actual wages. Answer D is almost identical to the second sentence in the passage, and is correct.
- 3. (A) and (B) are actually counter-arguments that make the case that the cars are in fact art using the reasoning in the argument. The argument states that automobiles cannot be art because they serve a practical purpose. (C) could be stretched to mean that art should not be made with any pragmatic design, but (D) is a better answer. (D) directly establishes that cars are not art because they serve a pragmatic purpose. (E) is a counter-argument to the entire premise of the argument.
- 4. (C) The evidence says that students who attend colleges with low faculty/student ratios get well-rounded educations, but the conclusion is that the author will send his kids to colleges with small student populations. Since colleges can have the second without necessarily having the first, (C) is correct.
- 5. (C) In this question we have to find what assumption underlies this argument. The argument involves a question of cause and effect. Since enrollment in computer training programs tends to be high when the economy is strong and low when it is weak, the reason must be, according to the author, a matter of people's perceptions of job availability. Sounds reasonable, but do all the terms match up with those in this conclusion? We know from the question stem that they do not. What's missing? Well, the evidence pertains to the state of the economy. But the conclusion strays into the area of psychology--people's perceptions. Are these the same things? The author treats them as such by arguing from evidence regarding the state of the economy to a conclusion based on people's perceptions of the economy. The author takes the relationship between these for granted, but technically, in order for the argument to work, this must be established. (C) is this basic assumption.
- 6. (D) An L.A. political candidate who buys saturation TV advertising will get maximum name recognition. In other words, such advertising is sufficient for maximum name recognition. If so, then it must be true that, as (D) says, a candidate can get such recognition without spending on other forms of media.
- 7. (C) If we can show that something besides the court system may explain the increase in crime we would weaken the argument. The author assumes that there is no other cause. Tackle the choices, looking for another cause besides the allegedly lenient court sentences. The argument's scope is the crime rate increase in this particular city only. In (A), the fact that white collar crime is also on the rise is more of a strengthener than a weakener. (C) presents an alternative explanation for the increase in crime (reduction in police). As for (B), what if 65

percent of people in the city oppose capital punishment? This provides little insight into why crime has gone up since last year. (D) tells us that numerous judges have been replaced in the last year. It is possible that the new judges are more lenient, but this would only strengthen the author's argument. (E) does not compare one city to another.

- 8. (A) This conclusion makes sense only if we assume (A), that the media CEO is the one who decides what to print. If (A) weren't true and this decision were up to someone other than the media CEO, the argument would fall apart. (B) is not relevant.
- 9. Choice (B) provides the necessary information because it shows that the process of building dams is learned and not inherited. Choice (A) establishes that traits could be passed on culturally, but does not establish that this takes place. (D) the isolation of population groups could support both a genetic and cultural basis of passing on building techniques. (C) and (E) are not relevant to how the information is passed on to future generations.
- 10. (E) The question stem asks you to pick the choice from which the statement can be derived, and that's (E). If, as (E) says, anyone who is a biology professor is an Darwinist except for the biology professor Simmons, then all biology professors except for Simmons are Darwinists. That being the case, it would certainly be true that, as the stimulus says, with the exception of Simmons, all biology professors-being a subset of all professors-are Darwinists. If you take the logic of the statement, that is the logical implication.
- 11. (C) The judge will have to be able to tell when the defendant is lying or telling the truth.
- 12. Choice (E) gives a way of counteracting a serious drawback of the sustained massive use of pesticides. If you rotate the antibiotics, the bacteria that develop a resistance to one bacterium will then be killed by the next antibiotic. Choice (A) would not necessarily make any difference. Steadily increasing dosage or developing stronger dosages will not kill the bacteria that have developed a resistance, so choice (B) and (C) can be ruled out. (D) Not treating patients will not benefit patients.

1. In Los Angeles, a political candidate who buys saturation radio advertising will get maximum name recognition.

The statement above logically conveys which of the following?

- A. Radio advertising is the most important factor in political campaigns in Los Angeles.
- B. Maximum name recognition in Los Angeles will help a candidate to win a higher percentage of votes cast in the city.
- C. Saturation radio advertising reaches every demographically distinct sector of the voting population of Los Angeles.
- D. For maximum name recognition a candidate need not spend on media channels other than radio advertising.
- E. A candidate's record of achievement in the Los Angeles area will do little to affect his or her name recognition there.
- 2. The rate of violent crime in this state is up 30 percent from last year. The fault lies entirely in our court system: Recently our judges' sentences have been so lenient that criminals can now do almost anything without fear of a long prison term.

The argument above would be weakened if it were true that

- A. 85 percent of the other states in the nation have lower crime rates than does this state.
- B. white collar crime in this state has also increased by over 25 percent in the last year.
- C. 35 percent of the police in this state have been laid off in the last year due to budget cuts.
- D. polls show that 65 percent of the population in this state oppose capital punishment.
- E. the state has hired 25 new judges in the last year to compensate for deaths and retirements.
- 3. The increase in the number of newspaper articles exposed as fabrications serves to bolster the contention that publishers are more interested in boosting circulation than in printing the truth. Even minor publications have staffs to check such obvious fraud.

The argument above assumes that

- A. newspaper stories exposed as fabrications are a recent phenomenon.
- B. everything a newspaper prints must be factually verifiable.
- C. fact checking is more comprehensive for minor publications than for major ones.
- D. only recently have newspapers admitted to publishing intentionally fraudulent stories.
- E. the publishers of newspapers are the people who decide what to print in their newspapers

4. Time and again it has been shown that students who attend colleges with low faculty/student ratios get the most well-rounded education. As a result, when my children are ready to attend college, I'll be sure they attend a school with a very small student population.

Which of the following, if true, identifies the greatest flaw in the reasoning above?

- A. A low faculty/student ratio is the effect of a well-rounded education, not its source.
- B. Intelligence should be considered the result of childhood environment, not advanced education.
- C. A very small student population does not by itself, ensure a low faculty/student ratio.
- D. Parental desires and preferences rarely determines a child's choice of a college or university.
- E. Students must take advantage of the low faculty/student ratio by intentionally choosing small classes.
- 5. All German philosphers, except for Marx, are idealists.

From which of the following can the statement above be most properly inferred?

- A. Except for Marx, if someone is an idealist philosopher, then he or she is German.
- B. Marx is the only non-German philosopher who is an idealist.
- C. If a German is an idealist, then he or she is a philosopher, as long as he or she is not Marx.
- D. Marx is not an idealist German philosopher.
- E. Aside from the philosopher Marx, if someone is a German, then he or she is an idealist.
- 6. Bill earns more commission than does Sandra. But since Andrew earns more commission than does Lisa, it follows that Bill earns more commission than does Lisa.

Any of the following, if introduced into the argument as an additional premise, makes the argument above logically correct EXCEPT:

- A. Andrew earns more commission than Bill
- B. Sandra earns more commission than Lisa
- C. Sandra earns more commission than Andrew
- D. Sandra and Andrew earn the same amount of commission
- E. Bill and Andrew earn the same amount of commission

7. During the SARS days, about 23,500 doctors who had treated SARS sufferers died and about 23,670 doctors who had not engaged in treatment for SARS sufferers died. On the basis of those figures, it can be concluded that it was not much more dangerous to participate in SARS treatment during the SARS day than it was not to participate in SARS treatment.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- A. Counting deaths among doctors who had participated in SARS treatment in addition to deaths among doctors who had not participated in SARS treatment
- B. Expressing the difference between the numbers of deaths among doctors who had treated SARS sufferers and doctors who had not treated SARS suffers as a percentage of the total number of deaths
- C. Separating deaths caused by accidents during the treatment to SARS suffers from deaths caused by infect of SARS suffers.
- D. Comparing death rates per thousand members of each group rather than comparing total numbers of deaths
- E. Comparing deaths caused by accidents in the United States to deaths caused by infect in treating SARS suffers.
- 8. In 2003 an airline in United State lost more than half, on average, of the foreign passengers they had previously served each year. Researchers have alleged that this extreme drop resulted from a rise in price of tickets for international lines from \$60 to \$90 per 1,000 miles.

Which of the following, if feasible, offers the best prospects for alleviating the problem of the drop in passengers as the researchers assessed it?

- A. Cooperating with other airlines to provide more international lines.
- B. Allowing foreign passengers to pay the same as the previous international line
- C. Reemphasizing the goals and mission of the airline as serving both domestic passengers and foreign passengers
- D. Increasing the financial resources of the airline by raising the ticket price for domestic passengers
- E. Offering superior VIP service for foreign passengers.
- 9. Our work proves to be very successful. In the past three years, each of our five clients has experienced the fastest growth of sales in their history. Therefore, if your company wants to increase sales, do not hesitate to call Sigma & Max, since we are the solution.

Which of the following, if true, most seriously jeopardizes the validity of the argument by the speaker above?

A. Most of the consultants at Sigma & Max hold MBA degrees.

- B. Even without the help of Sigma & Max, the five clients of Sigma & Max will achieve the same growth rate in sale.
- C. Sigma & Max is one of the five leading management consulting companies.
- D. Sigma & Max uses an updated accounting approach to help companies to cut
- E. All of the five clients of Sigma & Max are doing business in financial industry.
- 10. A life insurance company allows people to prepay their endowment insurance at current rates. The policyholder then pays the premium every year. People should participate in the program as a means of decreasing the cost for their living after retirement.

Which of the following, if true, is the most appropriate reason for people NOT to participate in the program?

- A. Peoples are unsure about which insurance company they will choose after retirement.
- B. The amount of money accumulated by putting the prepayment funds in an interest-bearing account today will be greater than the total cost of insurance when they retire.
- C. The annual cost of premium is expected to increase at a faster rate than the annual increase in the cost of living.
- D. Some of the insurance companies are contemplating large increases in premium next year.
- E. The prepayment plan would not cover the cost of hospitalization.

Questions 11-12 are based on the following passage.

If highways were restricted to cars and only those truck with capacity of less than 8 tons, most the truck traffic would be forced to run outside highway. Such a reduction in the amount of truck traffic would reduce the risk of collision in highway.

- 11. The conclusion draw in the first sentence depends on which of the following assumptions?
 - A. The roads outside highway would be as convenient as highway for most drivers of truck
 - B. Most roads outside highways are not ready to handle truck traffic.
 - C. Most trucks that are currently running in highway have a capacity of more than 8 tons.
 - D. Cars are at greater risk of becoming involved in collisions than are trucks.
 - E. A reduction in the risk of collision would eventually lead to increases in car traffic.
- 12. Which of the following, if true, would most strengthen the conclusion drawn in the second sentence?
 - A. Cars with a capacity of more than 8 tons are already excluded outside highways.
 - B. Highways are experiencing overcrowded traffic primarily because of sharp increases in car traffic.
 - C. Many drivers of trucks would rather buy truck with a capacity of less than 8 tons than be excluded from highways.

- D. The number of collisions that occur near highways has decreased in recent years.
- E. Trucks that have a capacity of more than 8 tons cause a disproportionately large number of collisions in highways.
- 13. The price of purchasing a car in Country Q is 120 percent less than the price of purchasing a car in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a buyer to import car from Country Q to Country Y than to buy car in Country Y.

The statements above, if true, best support which of the following assertions?

- A. Gasoline prices in Country Q are 120 percent below those in Country Y.
- B. Importing cars from Country Q to Country Y will eliminate 120 percent of the sales of cars in Country Y.
- C. The tariff on a car imported from Country Q to Country Y is less than 120 percent of the price of a car in Country Y.
- D. The fee for transporting a car from Country Q to Country Y is more than 120 percent of the price of a car in Country Q.
- E. It takes 120 percent less time to transport a car in Country Q than it does in Country Y.
- 14. In 1992, 5 percent of every dollar paid in tax went to support the unemployed citizens. In 1998, 8 percent of every dollar paid in tax went to such funds, although that unemployment rate has decreased in 1998 than in 1992.

Each of the following, if true, could explain the simultaneous increase in percent of every dollar paid in tax to support the unemployed citizens and decrease in the number of unemployment rate EXCEPT:

- A. On average, each unemployed citizen received more money in 1998 than 1992.
- B. On average, people paid less tax in 1998 ― than in 1992.
- C. The individuals had paid more tax than did enterprises during this period.
- D. Income before tax has significantly decreased since 1992.
- E. The number of tax evaders rose sharply between 1992 and ― 1998.
- 15. Something must be done to stop spam. In early days, people seldom received unsolicited email advertisement; but now that numerous bulk email software and email address finders are developed to collect email address all around the world. Advertisers use email addresses to market their products and even sell such email lists to other advertisers. As a result, almost everyone ever get junk email, and sometime several and even tens of annoying emails a day. So, relevant anti-spam regulations should be framed to stop unsolicited advertising.

The two portions in boldface play which of the following roles?

A. Background that the argument depends on and conclusion that can be drawn from the argument.

- B. Part of evidence that the argument includes, and inference that can be drawn from this passage.
- C. Pre-evidence that the argument depends on and part of evidence that supports the conclusion.
- D. Background that argument depends on and part of evidence that supports the conclusion.
- E. Pre-evidence that argument includes and a method that helps to supports that conclusion.
- 16. Stock analyst: "We believe Company A's stock will appreciate at 35% a year for the next 5 to 7 years. Company A just became the leader in its industry and we expect its sales to grow at 8% a year."

Commentator: "But how can the stock's price be expected to grow more quickly than the company's underlying sales?"

Which of the following facts would best support the stock analyst?

- A. The company's expenses will be declining over the next 5 to 10 years.
- B. The company just won a patent on a new product.
- C. Company A's stock is currently overvalued by a significant amount.
- D. The 5 to 7 year time frame is too long for anyone to accurately forecast.
- E. Company A's industry peer group is expected to experience stock appreciation rates of 30% over the same time horizon.
- 17. Acme brand aspirin claims to be the best headache relief available on the market today. To prove this claim, Acme called 10 people and asked them their thoughts on headache relief products. All 10 of them stated that they unequivocally use Acme brand aspirin on a regular basis and that they believe it to be the best headache relief available on the market today.

Which of the following would most weaken this argument?

- A. Acme brand aspirin is highly addictive.
- B. The 10 people called were married to the company's top 10 executives, and they were coached on what to say.
- C. Most people choose to suffer silently through their headaches and take no medicines whatsoever.
- D. This survey was conducted by an independent company.
- E. The 10 people were selected at random.
- 18. My neighbor's dogs bark and howl every time their owner lets them outside. My CPA told me that dogs tend to bark and howl when they see birds resting in the top branches of their favorite trees. I personally believe they bark and howl because they enjoy disrupting my meditations.

Which of the following can be inferred from the preceding passage?

- A. The dogs must be abused by their owners.
- B. The dogs' owners do not care how they are viewed by their neighbors.
- C. There are many pedestrians who walk by this neighbor's house, and the dogs are starving for attention.
- D. The dogs enjoy being outside.
- E. The dogs will bark and howl at 3 a.m. if they are outside at that time.
- 19. Most citizens are very conscientious about observing a law when they can see the reason behind it. For instance, there has been very little need to actively enforce the recently-implemented law that increased the penalty for motorists caught leaving a gas station without paying for gas they had pumped into their vehicles. This is because citizens are very conscientious of the high cost of gasoline and they know that stealing gas will only further increase the price of gasoline for everyone.

Which of the following statements would the author of this passage be most likely to believe?

- A. The increased penalty alone is a significant motivation for most citizens to obey the law.
- B. There are still too many inconsiderate citizens in the local community.
- C. High gasoline prices can be brought down if everyone does his or her part and pays for the gasoline they use at the pumps.
- D. Society should make an effort to teach citizens the reasons for its laws. People would be more likely to speed on a stretch of deserted highway than to not pay for gasoline.
- 20. Nearly one in three subscribers to Financial Forecaster is a millionaire, and over half are in top management.

Shouldn't you subscribe to Financial Forecaster now?

A reader who is neither a millionaire nor in top management would be most likely to act in accordance with the advertisement's suggestion if he or she drew which of the following questionable conclusions invited by the advertisement?

- A. Among finance-related periodicals. Financial Forecaster provides the most detailed financial information.
- B. Top managers cannot do their jobs properly without reading Financial Forecaster.
- C. The advertisement is placed where those who will be likely to read it are millionaires.
- D. The subscribers mentioned were helped to become millionaires or join top management by reading Financial Forecaster.
- E. Only those who will in fact become millionaires, or at least top managers, will read the advertisement.

Questions 21-22 are based on the following.

Contrary to the charges made by some of its opponents, the provisions of the new deficit-reduction law for indiscriminate cuts in the federal budget are justified. Opponents should remember that the New Deal pulled this country out of great economic troubles even though some of its programs were later found to be unconstitutional.

- 21. The author's method of attacking the charges of certain opponents of the new deficit-reduction law is to
 - A. attack the character of the opponents rather than their claim
 - B. imply an analogy between the law and some New Deal programs
 - C. point out that the opponents' claims imply a dilemma
 - D. show that the opponents' reasoning leads to an absurd conclusion
 - E. show that the New Deal also called for indiscriminate cuts in the federal budget
- 22. The opponents could effectively defend their position against the author's strategy by pointing out that
 - A. the expertise of those opposing the law is outstanding
 - B. the lack of justification for the new law does not imply that those who drew it up were either inept or immoral
 - C. the practical application of the new law will not entail indiscriminate budget cuts
 - D. economic troubles present at the time of the New Deal were equal in severity to those that have led to the present law
 - E. the fact that certain flawed programs or laws have improved the economy does not prove that every such program can do so
- 23. In Millington, a city of 50,000 people, Mercedes Pedrosa, a realtor, calculated that a family with Millington's median family income, \$28,000 a year, could afford to buy Millington's median-priced \$77,000 house. This calculation was based on an 11.2 percent mortgage interest rate and on the realtor's assumption that a family could only afford to pay up to 25 percent of its income for housing.

Which of the following corrections of a figure appearing in the passage above, if it were the only correction that needed to be made, would yield a new calculation showing that even incomes below the median family income would enable families in Millington to afford Millington's median-priced house?

- A. Millington's total population was 45,000 people.
- B. Millington's median annual family income was \$27,000
- C. Millington's median-priced house cost \$80,000
- D. The rate at which people in Millington had to pay mortgage interest was only 10 percent.
- E. Families in Millington could only afford to pay up to 22 percent of their annual income for housing
- 24. Psychological research indicates that college hockey and football players are more quickly moved to hostility and aggression than are college athletes in noncontact sports

such as swimming. But the researchers' conclusion-that contact sports encourage and teach participants to be hostile and aggressive-is untenable. The football and hockey players were probably more hostile and aggressive to start with than the swimmers.

Which of the following, if true, would most strengthen the conclusion drawn by the psychological researchers?

- A. The football and hockey players became more hostile and aggressive during the season and remained so during the off-season, whereas there was no increase in aggressiveness among the swimmers.
- B. The football and hockey players, but not the swimmers, were aware at the start of the experiment that they were being tested for aggressiveness.
- C. The same psychological research indicated that the football and hockey players had a great respect for cooperation and team play, whereas the swimmers were most concerned with excelling as individual competitors.
- D. The research studies were designed to include no college athletes who participated in both contact and noncontact sports.
- E. Throughout the United States, more incidents of fan violence occur at baseball games than occur at hockey or football games.
- 25. Ross: The profitability of Company X, restored to private ownership five years ago, is clear evidence that businesses will always fare better under private than under public ownership.

Julia: Wrong. A close look at the records shows that X has been profitable since the appointment of a first-class manager, which happened while X was still in the pubic sector.

Which of the following best describes the weak point in Ross's claim on which Julia's response focuses?

- A. The evidence Ross cites comes from only a single observed case, that of Company X.
- B. The profitability of Company X might be only temporary.
- C. Ross's statement leaves open the possibility that the cause he cites came after the effect he attributes to it.
- D. No mention is made of companies that are partly government owned and partly privately owned.
- E. No exact figures are given for the current profits of Company X.
- 26. are needed to protect inventions from being pirated. With that protection, manufacturers would be encouraged to invest in the development of new products and technologies. Such investment frequently results in an increase in a manufacturer's productivity.

Which of the following conclusions can most properly be drawn from the information above?

A. Stronger patent laws tend to benefit financial institutions as well as manufacturers.

- B. Increased productivity in manufacturing is likely to be accompanied by the creation of more manufacturing jobs.
- C. Manufacturers will decrease investment in the development of new products and technologies unless there are stronger patent laws.
- D. The weakness of current patent laws has been a cause of economic recession.
- E. Stronger patent laws would stimulate improvements in productivity for many manufacturers.
- 27. Which of the following best completes the passage below?

At large amusement parks, live shows are used very deliberately to influence crowd movements. Lunchtime performances relieve the pressure on a park's restaurants. Evening performances have a rather different purpose: to encourage visitors to stay for supper. Behind this surface divergence in immediate purpose there is the unified underlying goal of

- A. keeping the lines at the various rides short by drawing off part of the crowd
- B. enhancing revenue by attracting people who come only for the live shows and then leave the park
- C. avoiding as far as possible traffic jams caused by visitors entering or leaving the park
- D. encouraging as many people as possible to come to the park in order to eat at the restaurants
- E. utilizing the restaurants at optimal levels for as much of the day as possible

28.

- o James weighs more than Kelly.
- Luis weighs more than Mark.
- o Mark weighs less than Ned.
- o Kelly and Ned are exactly the same weight.

If the information above is true, which of the following must also be true?

- A. Luis weighs more than Ned.
- B. Luis weighs more than James.
- C. Kelly weighs less than Luis
- D. James weighs more than Mark
- E. Kelly weighs less than Mark.

Questions 29-30 are based on the following.

Partly because of bad weather, but also partly because some major pepper growers have switched to high-priced cocoa, world production of pepper has been running well below worldwide sales for three years. Pepper is consequently in relatively short supply. The price of pepper has soared in response: it now equals that of cocoa.

- 27. Which of the following can be inferred from the passage?
 - A. Pepper is a profitable crop only if it is grown on a large scale.

- B. World consumption of pepper has been unusually high for three years.
- C. World production of pepper will return to previous levels once normal weather returns
- D. Surplus stocks of pepper have been reduced in the past three years.
- E. The profits that the growers of pepper have made in the past three years have been unprecedented.
- 28. Some observers have concluded that the rise in the price of pepper means that the switch by some growers from pepper to cocoa left those growers no better off than if none of them had switched; this conclusion, however, is unwarranted because it can be inferred to be likely that
 - A. those growers could not have foreseen how high the price of pepper would go
 - B. the initial cost involved in switching from pepper to cocoa is substantial
 - C. supplies of pepper would not be as low as they are if those growers had not switched crops
 - D. cocoa crops are as susceptible to being reduced by bad weather as are pepper crops
 - E. as more growers turn to growing cocoa, cocoa supplies will increase and the price of cocoa will fall precipitously.
- 29. Using computer techniques, researchers analyze layers of paint that lie buried beneath the surface layers of old paintings. They claim, for example, that additional mountainous scenery once appeared in Leonardo da Vinci's Mona Lisa, which was later painted over. Skeptics reply to these claims, however, that X-ray examinations of the Mona Lisa do not show hidden mountains.

Which of the following, if true, would tend most to weaken the force of the skeptics' objections?

- A. There is no written or anecdotal record that Leonardo da Vinci ever painted over major areas of his Mona Lisa.
- B. Painters of da Vinci's time commonly created images of mountainous scenery in the backgrounds of portraits like the Mona Lisa
- C. No one knows for certain what parts of the Mona Lisa may have been painted by da Vinci's assistants rather than by da Vinci himself.
- D. Infrared photography of the Mona Lisa has revealed no trace of hidden mountainous scenery.
- E. Analysis relying on X-rays only has the capacity to detect lead-based white pigments in layers of paint beneath a painting's surface layers.
- 30. While Governor Verdant has been in office, the state's budget has increased by an average of 6 percent each year. While the previous governor was in office, the state's budget increased by an average of 11.5 percent each year. Obviously, the austere budgets during Governor Verdant's term have caused the slowdown in the growth in state spending.

Which of the following, if true, would most seriously weaken the conclusion drawn above?

- A. The rate of inflation in the state averaged 10 percent each year during the previous governor's term in office and 3 percent each year during Verdant's term.
- B. Both federal and state income tax rates have been lowered considerably during Verdant's term in office.
- C. In each year of Verdant's term in office, the state's budget has shown some increase in spending over the previous year.
- D. During Verdant's term in office, the state has either discontinued or begun to charge private citizens for numerous services that the state offered free to citizens during the previous governor's term.
- E. During the previous governor's term in office, the state introduced several so-called "austerity" budgets intended to reduce the growth in state spending.
- 31. Technological education is worsening. People between eighteen and twenty-four, who are just emerging from their formal education, are more likely to be technologically illiterate than somewhat older adults. And yet, issues for public referenda will increasingly involve aspects of technology.

Which of the following conclusions can be properly drawn from the statements above?

- A. If all young people are to make informed decisions on public referenda, many of them must learn more about technology.
- B. Thorough studies of technological issues and innovations should be made a required part of the public and private school curriculum.
- C. It should be suggested that prospective voters attend applied science courses in order to acquire a minimal competency in technical matters.
- D. If young people are not to be overly influenced by famous technocrats, they must increase their knowledge of pure science.
- E. On public referenda issues, young people tend to confuse real or probable technologies with impossible ideals.
- 32. In a political system with only two major parties, the entrance of a third-party candidate into an election race damages the chances of only one of the two major candidates. The third-party candidate always attracts some of the voters who might otherwise have voted for one of the two major candidates, but not voters who support the other candidate. Since a third-party candidacy affects the two major candidates unequally, for reasons neither of them has any control over, the practice is unfair and should not be allowed.

If the factual information in the passage above is true, which of the following can be most reliably inferred from it?

A. If the political platform of the third party is a compromise position between that of the two major parties, the third party will draw its voters equally from the two major parties.

- B. If, before the emergence of a third party, voters were divided equally between the two major parties, neither of the major parties is likely to capture much more than one-half of the vote.
- C. A third-party candidate will not capture the votes of new voters who have never voted for candidates of either of the two major parties.
- D. The political stance of a third party will be more radical than that of either of the two major parties.
- E. The founders of a third party are likely to be a coalition consisting of former leaders of the two major parties.
- 33. Companies considering new cost-cutting manufacturing processes often compare the projected results of making the investment against the alternative of not making the investment with costs, selling prices, and share of market remaining constant.

Which of the following, assuming that each is a realistic possibility, constitutes the most serious disadvantage for companies of using the method above for evaluating the financial benefit of new manufacturing processes?

- A. The costs of materials required by the new process might not be known with certainty.
- B. In several years interest rates might go down, reducing the interest costs of borrowing money to pay for the investment.
- C. Some cost-cutting processes might require such expensive investments that there would be no net gain for many years, until the investment was paid for by savings in the manufacturing process.
- D. Competitors that do invest in a new process might reduce their selling prices and thus take market share away from companies that do not.
- E. The period of year chosen for averaging out the cost of the investment might be somewhat longer or shorter, thus affecting the result.
- 36. than there are people who want to adopt. Two million couples are currently waiting to adopt, but in 1982, the last year for which figures exist, there were only some 50,000 adoptions.

Which of the following statements, if true, most strengthens the author's claim that there are far fewer children available for adoption than there are people who want to adopt?

- A. The number of couples waiting to adopt has increased significantly in the last decade
- B. The number of adoptions in the current year is greater than the number of adoptions in any preceding year.
- C. The number of adoptions in a year is approximately equal to the number of children available for adoption in that period.
- D. People who seek to adopt children often go through a long process of interviews and investigation by adoption agencies.
- E. People who seek to adopt children generally make very good parents.

Questions 37-38 are based on the following

Archaeologists seeking the location of a legendary siege and destruction of a city are excavating in several possible places, including a middle and a lower layer of a large mound. The bottom of the middle layer contains some pieces of pottery of type 3, known to be from a later period than the time of the destruction of the city, but the lower layer does not.

- 37. Which of the following hypotheses is best supported by the evidence above?
 - A. The lower layer contains the remains of the city where the siege took place.
 - B. The legend confuses stories from two different historical periods.
 - C. The middle layer does not represent the period of the siege.
 - D. The siege lasted for a long time before the city was destroyed.
 - E. The pottery of type 3 was imported to the city by traders.
- 38. The force of the evidence cited above is most seriously weakened if which of the following is true?
 - A. Gerbils, small animals long native to the area, dig large burrows into which objects can fall when the burrows collapse.
 - B. Pottery of types 1 and 2, found in the lower level, was used in the cities from which, according to the legend, the besieging forces came.
 - C. Several pieces of stone from a lower-layer wall have been found incorporated into the remains of a building in the middle layer.
 - D. Both the middle and the lower layer show evidence of large-scale destruction of habitations by fire.
 - E. Bronze axheads of a type used at the time of the siege were found in the lower level of excavation.
- 39. After the national speed limit of 55 miles per hour was imposed in 1974, the number of deaths per mile driven on a highway fell abruptly as a result. Since then, however, the average speed of vehicles on highways has risen, but the number of deaths per mile driven on a highway has continued to fall.

Which of the following conclusions can be properly drawn from the statements above?

- A. The speed limit alone is probably not responsible for the continued reduction in highway deaths in the years after 1974.
- B. People have been driving less since 1974.
- C. Driver-education courses have been more effective since 1974 in teaching drivers to drive safely.
- D. In recent years highway patrols have been less effective in catching drivers who speed.
- E. The change in the speed limit cannot be responsible for the abrupt decline in highway deaths in 1974.

40. Neighboring landholders: Air pollution from the giant aluminum refinery that has been built next to our land is killing our plants.

Company spokesperson: The refinery is not to blame, since our study shows that the damage is due to insects and fungi.

Which of the following, if true, most seriously weakens the conclusion drawn by the company spokesperson?

- A. The study did not measure the quantity of pollutants emitted into the surrounding air by the aluminum refinery.
- B. The neighboring landholders have made no change in the way they take care of their plants.
- C. Air pollution from the refinery has changed the chemical balance in the plants' environment, allowing the harmful insects and fungi to thrive.
- D. Pollutants that are invisible and odorless are emitted into the surrounding air by the refinery.
- E. The various species of insects and fungi mentioned in the study have been occasionally found in the locality during the past hundred years.
- 41. Sales taxes tend to be regressive, affecting poor people more severely than wealthy people. When all purchases of consumer goods are taxed at a fixed percentage of the purchase price, poor people pay a larger proportion of their income in sales taxes than wealthy people do.

It can be correctly inferred on the basis of the statements above that which of the following is true?

- A. Poor people constitute a larger proportion of the taxpaying population than wealthy people do.
- B. Poor people spend a larger proportion of their income on purchases of consumer goods than wealthy people do.
- C. Wealthy people pay, on average, a larger amount of sales taxes than poor people do.
- D. The total amount spent by all poor people on purchases of consumer goods exceeds the total amount spent by all wealthy people on consumer goods.
- E. The average purchase price of consumer goods bought by wealthy people is higher than that of consumer goods bought by poor people.
- 42. Reviewing historical data, medical researchers in California found that counties with the largest number of television sets per capita have had the lowest incidence of a serious brain disease, mosquito-borne encephalitis. The researchers have concluded that people in these counties stay indoors more and thus avoid exposure to the disease.

The researchers' conclusion would be most strengthened if which of the following were true?

A. Programs designed to control the size of disease-bearing mosquito populations have not affected the incidence of mosquito- borne encephalitis.

- B. The occupations of county residents affect their risk of exposure to mosquitoborne encephalitis more than does television-watching.
- C. The incidence of mosquito-borne encephalitis in counties with the largest number of television sets per capita is likely to decrease even further.
- D. The more time people in a county spend outdoors, the greater their awareness of the dangers of mosquito-borne encephalitis.
- E. The more television sets there are per capita in a county, the more time the average county resident spends watching television
- 43. The city's public transportation system should be removed from the jurisdiction of the municipal government, which finds it politically impossible either to raise fares or to institute cost-saving reductions in service. If public transportation were handled by a private firm, profits would be vigorously pursued, thereby eliminating the necessity for covering operating costs with government funds.

The statements above best support the conclusion that

- A. the private firms that would handle public transportation would have experience in the transportation industry
- B. political considerations would not prevent private firms from ensuring that revenues cover operating costs
- C. private firms would receive government funding if it were needed to cover operating costs
- D. the public would approve the cost-cutting actions taken by the private firm
- E. the municipal government would not be resigned to accumulating merely enough income to cover costs
- 44. To entice customers away from competitors, Red Label supermarkets have begun offering discounts on home appliances to customers who spend \$50 or more on any shopping trip to Red Label. Red Label executives claim that the discount program has been a huge success, since cash register receipts of \$50 or more are up thirty percent since the beginning of the program.

Which of the following, if true, most seriously weakens the claim of the Red Label executives?

- A. Most people who switched to Red Label after the program began spend more than \$50 each time they shop at Red Label.
- B. Most people whose average grocery bill is less than \$50 would not be persuaded to spend more by any discount program.
- C. Most people who received discounts on home appliances through Red Label's program will shop at Red Label after the program ends.
- D. Since the beginning of the discount program, most of the people who spend \$50 or more at Red Label are people who have never before shopped there and whose average grocery bill has always been higher than \$50.
- E. Almost all of the people who have begun spending \$50 or more at Red Label since the discount program began are longtime customers who have increased the average amount of their shopping bills by making fewer trips.
- 45. Throughout the 1950's, there were increases in the numbers of dead birds found in agricultural areas after pesticide sprayings. Pesticide manufacturers claimed that the publicity given to bird deaths stimulated volunteers to look for dead birds, and that the

increase in numbers reported was attributable to the increase in the number of people looking.

Which of the following statements, if true, would help to refute the claim of the pesticide manufacturers?

- A. The publicity given to bird deaths was largely regional and never reached national proportions.
- B. Pesticide sprayings were timed to coincide with various phases of the life cycles of the insects they destroyed.
- C. No provision was made to ensure that a dead bird would not be reported by more than one observer.
- D. Initial increases in bird deaths had been noticed by agricultural workers long before any publicity had been given to the matter.
- E. Dead birds of the same species as those found in agricultural areas had been found along coastal areas where no farming took place.
- 46. Teenagers are often priced out of the labor market by the government-mandated minimum-wage level because employers cannot afford to pay that much for extra help. Therefore, if Congress institutes a subminimum wage, a new lower legal wage for teenagers, the teenage unemployment rate, which has been rising since 1960, will no longer increase.

Which of the following, if true, would most weaken the argument above?

- A. Since 1960 the teenage unemployment rate has risen when the minimum wage has risen.
- B. Since 1960 the teenage unemployment rate has risen even when the minimum wage remained constant.
- C. Employers often hire extra help during holiday and warm weather seasons.
- D. The teenage unemployment rate rose more quickly in the 1970's than it did in the 1960's.
- E. The teenage unemployment rate has occasionally declined in the years since 1960.
- 47. Which of the following best completes the passage below?

The computer industry's estimate that it loses millions of dollars when users illegally copy programs without paying for them is greatly exaggerated. Most of the illegal copying is done by people with no serious interest in the programs. Thus, the loss to the industry is much smaller than estimated because

- A. many users who illegally copy programs never find any use for them
- B. most of the illegally copied programs would not be purchased even if purchasing them were the only way to obtain them
- C. even if the computer industry received all the revenue it claims to be losing, it would still be experiencing financial difficulties
- D. the total market value of all illegal copies is low in comparison to the total revenue of the computer industry
- E. the number of programs that are frequently copied illegally is low in comparison to the number of programs available for sale

48. This year the New Hampshire Division of Company X, set a new record for annual sales by that division. This record is especially surprising since the New Hampshire Division has the smallest potential market and the lowest sales of any of Company X's divisions.

Which of the following identifies a flaw in the logical coherence of the statement above?

- A. If overall sales for Company X were sharply reduced, the New Hampshire Division's new sales record is irrelevant to the company's prosperity.
- B. Since the division is competing against its own record, the comparison of its sales record with that of other divisions is irrelevant.
- C. If this is the first year that the New Hampshire Division has been last in sales among Company X's divisions, the new record is not surprising at all.
- D. If overall sales for Company X were greater than usual, it is not surprising that the New Hampshire Division was last in sales.
- E. Since the New Hampshire Division has the smallest potential market, it is not surprising that it had the lowest sales.
- 49. Statement of a United States copper mining company: Import quotas should be imposed on the less expensive copper mined outside the country to maintain the price of copper in this country; otherwise, our companies will not be able to stay in business. Response of a United States copper wire manufacturer: United States wire and cable manufacturers purchase about 70 percent of the copper mined in the United States. If the copper prices we pay are not at the international level, our sales will drop, and then the demand for United States copper will go down.

If the factual information presented by both companies is accurate, the best assessment of the logical relationship between the two arguments is that the wire manufacturer's argument

- A. is self-serving and irrelevant to the proposal of the mining company
- B. is circular, presupposing what it seeks to prove about the proposal of the mining company
- C. shows that the proposal of the mining company would have a negative effect on the mining company's own business
- D. fails to give a reason why the proposal of the mining company should not be put into effect to alleviate the concern of the mining company for staying in business
- E. establishes that even the mining company's business will prosper if the mining company's proposal is rejected
- 50. Y has been believed to cause Z. A new report, noting that Y and Z are often observed to be preceded by X, suggests that X, not Y, may be the cause of Z.

Which of the following further observations would best support the new report's suggestion?

- A. In cases where X occurs but Y does not, X is usually followed by Z.
- B. In cases where X occurs, followed by Y, Y is usually followed by Z.
- C. In cases where Y occurs but X does not, Y is usually followed by Z.
- D. In cases where Y occurs but Z does not, Y is usually preceded by X.
- E. In cases where Z occurs, it is usually preceded by X and Y.

51. Mr. Primm: If hospitals were private enterprises, dependent on profits for their survival, there would be no teaching hospitals, because of the intrinsically high cost of running such hospitals.

Ms. Nakai: I disagree. The medical challenges provided by teaching hospitals attract the very best physicians. This, in turn, enables those hospitals to concentrate on nonroutine cases.

Which of the following, if true, would most strengthen Ms. Nakai's attempt to refute Mr. Primm's claim?

- A. Doctors at teaching hospitals command high salaries.
- B. Sophisticated, nonroutine medical care commands a high price.
- C. Existing teaching hospitals derive some revenue from public subsidies.
- D. The patient mortality rate at teaching hospitals is high.
- E. The modern trend among physicians is to become highly specialized.
- 52. A recent survey of all auto accident victims in Dole County found that, of the severely injured drivers and front-seat passengers, 80 percent were not wearing seat belts at the time of their accidents. This indicates that, by wearing seat belts, drivers and front-seat passengers can greatly reduce their risk of being severely injured if they are in an auto accident.

The conclusion above is not properly drawn unless which of the following is true?

- A. Of all the drivers and front-seat passengers in the survey, more than 20 percent were wearing seat belts at the time of their accidents.
- B. Considerably more than 20 percent of drivers and front-seat passengers in Dole County always wear seat belts when traveling by car.
- C. More drivers and front-seat passengers in the survey than rear-seat passengers were very severely injured.
- D. More than half of the drivers and front-seat passengers in the survey were not wearing seat belts at the time of their accidents.
- E. Most of the auto accidents reported to police in Dole County do not involve any serious injury.
- 53. Six months or so after getting a video recorder, many early buyers apparently lost interest in obtaining videos to watch on it. The trade of businesses selling and renting videos is still buoyant, because the number of homes with video recorders is still growing. But clearly, once the market for video recorders is saturated, businesses distributing videos face hard times.

Which of the following, if true, would most seriously weaken the conclusion above?

- A. The market for video recorders would not be considered saturated until there was one in 80 percent of homes.
- B. Among the items handled by video distributors are many films specifically produced as video features.
- C. Few of the early buyers of video recorders raised any complaints about performance aspects of the new product.
- D. The early buyers of a novel product are always people who are quick to acquire novelties, but also often as quick to tire of them.

- E. In a shrinking market, competition always intensifies and marginal businesses
- 54. Advertiser: The revenue that newspapers and magazines earn by publishing advertisements allows publishers to keep the prices per copy of their publications much lower than would otherwise be possible. Therefore, consumers benefit economically from advertising.

Consumer: But who pays for the advertising that pays for low-priced newspapers and magazines?

We consumers do, because advertisers pass along advertising costs to us through the higher prices they charge for their products.

Which of the following best describes how the consumer counters the advertiser's argument?

- A. By alleging something that, if true, would weaken the plausibility of the advertiser's conclusion
- B. By questioning the truth of the purportedly factual statement on which the advertiser's conclusion is based
- C. By offering an interpretation of the advertiser's opening statement that, if accurate, shows that there is an implicit contradiction in it
- D. By pointing out that the advertiser's point of view is biased
- E. By arguing that the advertiser too narrowly restricts the discussion to the effects of advertising that are economic
- 55. Mr. Lawson: We should adopt a national family policy that includes legislation requiring employers to provide paid parental leave and establishing government-sponsored day care. Such laws would decrease the stress levels of employees who have responsibility for small children. Thus, such laws would lead to happier, better-adjusted families.

Which of the following, if true, would most strengthen the conclusion above?

- A. An employee's high stress level can be a cause of unhappiness and poor adjustment for his or her family.
- B. People who have responsibility for small children and who work outside the home have higher stress levels than those who do not.
- C. The goal of a national family policy is to lower the stress levels of parents.
- D. Any national family policy that is adopted would include legislation requiring employers to provide paid parental leave and establishing government-sponsored day care.
- E. Most children who have been cared for in daycare centers are happy and well adjusted.
- 56. Lark Manufacturing Company initiated a voluntary Quality Circles program for machine operators. Independent surveys of employee attitudes indicated that the machine operators participating in the program were less satisfied with their work situations after two years of the program's existence than they were at the program's start. Obviously, any workers who participate in a Quality Circles program will, as a result, become less satisfied with their jobs.

Each of the following, if true, would weaken the conclusion drawn above EXCETP:

- A. The second survey occurred during a period of recession when rumors of cutbacks and layoffs at Lark Manufacturing were plentiful.
- B. The surveys also showed that those Lark machine operators who neither participated in Quality Circles nor knew anyone who did so reported the same degree of lessened satisfaction with their work situations as did the Lark machine operators who participated in Quality Circles.
- C. While participating in Quality Circles at Lark Manufacturing, machine operators exhibited two of the primary indicators of improved job satisfaction: increased productivity and decreased absenteeism.
- D. Several workers at Lark Manufacturing who had participated in Quality Circles while employed at other companies reported that, while participating in Quality Circles in their previous companies, their work satisfaction had increased.
- E. The machine operators who participated in Quality Circles reported that, when the program started, they felt that participation might improve their work situations.

Blood banks will shortly start to screen all donors for NANB hepatitis. Although the new screening tests are estimated to disqualify up to 5 percent of all prospective blood donors, they will still miss two-thirds of donors carrying NANB hepatitis. Therefore, about 10 percent of actual donors will still supply NANB-contaminated blood.

- 57. The argument above depends on which of the following assumptions?
 - A. Donors carrying NANB hepatitis do not, in a large percentage of cases, carry other infections for which reliable screening tests are routinely performed.
 - B. Donors carrying NANB hepatitis do not, in a large percentage of cases, develop the disease themselves at any point.
 - C. The estimate of the number of donors who would be disqualified by tests for NANB hepatitis is an underestimate.
 - D. The incidence of NANB hepatitis is lower among the potential blood donors than it is in the population at large.
 - E. The donors who will still supply NANB-contaminated blood will donate blood at the average frequency for all donors.
- 58. Which of the following inferences about the conse-quences of instituting the new tests is best supported by the passage above?
 - A. The incidence of new cases of NANB hepatitis is likely to go up by 10 percent.
 - B. Donations made by patients specifically for their own use are likely to become less frequent.
 - C. The demand for blood from blood banks is likely to fluctuate more strongly.
 - D. The blood supplies available from blood banks are likely to go down.
 - E. The number of prospective first-time donors is likely to go up by 5 percent.
- 59. Child's World, a chain of toy stores, has relied on a "supermarket concept" of computerized inventory control and customer self-service to eliminate the category of sales clerks from its force of employees. It now plans to employ the same concept in selling children's clothes. The plan of Child's World assumes that
 - A. supermarkets will not also be selling children's clothes in the same manner
 - B. personal service by sales personnel is not required for selling children's clothes successfully
 - C. the same kind of computers will be used in inventory control for both clothes and toys at Child's World
 - D. a self-service plan cannot be employed without computerized inventory control

- E. sales clerks are the only employees of Child's World who could be assigned tasks related to inventory control
- 60. Continuous indoor fluorescent light benefits the health of hamsters with inherited heart disease. A group of them exposed to continuous fluorescent light survived twenty-five percent longer than a similar group exposed instead to equal periods of indoor fluorescent light and of darkness.

The method of the research described above is most likely to be applicable in addressing which of the following questions?

- A. Can industrial workers who need to see their work do so better by sunlight or by fluorescent light?
- B. Can hospital lighting be improved to promote the recovery of patients?
- C. How do deep-sea fish survive in total darkness?
- D. What are the inherited illnesses to which hamsters are subject?
- E. Are there plants that require specific periods of darkness in order to bloom?
- 61. Millions of identical copies of a plant can be produced using new tissue-culture and cloning techniques.

If plant propagation by such methods in laboratories proves economical, each of the following, if true, represents a benefit of the new techniques to farmers EXCEPT:

- A. The techniques allow the development of superior strains to take place more rapidly, requiring fewer generations of plants grown to maturity.
- B. It is less difficult to care for plants that will grow at rates that do not vary widely.
- C. Plant diseases and pests, once they take hold, spread more rapidly among genetically uniform plants than among those with genetic variations.
- D. Mechanical harvesting of crops is less difficult if plants are more uniform in size.
- E. Special genetic traits can more easily be introduced into plant strains with the use of the new techniques.
- 62. Which of the following best completes the passage below? Sales campaigns aimed at the faltering personal computer market have strongly emphasized ease of use, called user-friendliness. This emphasis is oddly premature and irrelevant in the eyes of most potential buyers, who are trying to address the logically prior issue of whether
 - A. user-friendliness also implies that owners can service their own computers
 - B. personal computers cost more the more user-friendly they are
 - C. currently available models are user-friendly enough to suit them
 - D. the people promoting personal computers use them in their own homes
 - E. they have enough sensible uses for a personal computer to justify the expense of buying one
- 63. A weapons-smuggling incident recently took place in country Y. We all know that Y is a closed society. So Y's government must have known about the weapons.

Which of the following is an assumption that would make the conclusion above logically correct?

A. If a government knows about a particular weapons-smuggling incident, it must have intended to use the weapons for its own purposes.

- B. If a government claims that it knew nothing about a particular weapons-smuggling incident, it must have known everything about it.
- C. If a government does not permit weapons to enter a country, it is a closed society.
- D. If a country is a closed society, its government has a large contingent of armed guards patrolling its borders.
- E. If a country is a closed society, its government has knowledge about everything that occurs in the country.
- 64. Banning cigarette advertisements in the mass media will not reduce the number of young people who smoke. They know that cigarettes exist and they know how to get them. They do not need the advertisements to supply that information.

The above argument would be most weakened if which of the following were true?

- A. Seeing or hearing an advertisement for a product tends to increase people's desire for that product.
- B. Banning cigarette advertisements in the mass media will cause an increase in advertisements in places where cigarettes are sold.
- C. Advertisements in the mass media have been an exceedingly large part of the expenditures of the tobacco companies.
- D. Those who oppose cigarette use have advertised against it in the mass media ever since cigarettes were found to be harmful.
- E. Older people tend to be less influenced by mass-media advertisements than younger people tend to be.
- 65. People tend to estimate the likelihood of an event's occurrence according to its salience; that is, according to how strongly and how often it comes to their attention.

 By placement and headlines, newspapers emphasize stories about local crime over stories about crime elsewhere and about many other major events.

It can be concluded on the basis of the statements above that, if they are true, which of the following is most probably also true?

- A. The language used in newspaper headlines about local crime is inflammatory and fails to respect the rights of suspects.
- B. The coverage of international events in newspapers is neglected in favor of the coverage of local events.
- C. Readers of local news in newspapers tend to overestimate the amount of crime in their own localities relative to the amount of crime in other places.
- D. None of the events concerning other people that are reported in newspapers is so salient in people's minds as their own personal experiences.
- E. The press is the news medium that focuses people's attention most strongly on local crimes.
- 66. By analyzing the garbage of a large number of average-sized households, a group of modern urban anthropologists has found that a household discards less food the more standardized-made up of canned and prepackaged foods-its diet is. The more standardized a household's diet is, however, the greater the quantities of fresh produce the household throws away.

Which of the following can be properly inferred from the passage?

- A. An increasing number of households rely on a highly standardized diet.
- B. The less standardized a household's diet is, the more nonfood waste the household discards.
- C. The less standardized a household's diet is, the smaller is the proportion of fresh produce in the household's food waste.
- D. The less standardized a household's diet is, the more canned and prepackaged foods the household discards as waste.
- E. The more fresh produce a household buys, the more fresh produce it throws away.

In the past, teachers, bank tellers, and secretaries were predominantly men; these occupations slipped in pay and status when they became largely occupied by women. Therefore, if women become the majority in currently male-dominated professions like accounting, law, and medicine, the income and prestige of these professions will also drop.

- 67. The argument above is based on
 - A. another argument that contains circular reasoning
 - B. an attempt to refute a generalization by means of an exceptional case
 - C. an analogy between the past and the future
 - D. an appeal to popular beliefs and values
 - E. an attack on the character of the opposition.
- 68. Which of the following, if true, would most likely be part of the evidence used to refute the conclusion above?
 - A. Accountants, lawyers, and physicians attained their current relatively high levels of income and prestige at about the same time that the pay and status of teachers, bank tellers, and secretaries slipped.
 - B. When large numbers of men join a female-dominated occupation, such as airline flight attendant, the status and pay of the occupation tend to increase.
 - C. The demand for teachers and secretaries has increased significantly in recent years, while the demand for bank tellers has remained relatively stable.
 - D. If present trends in the awarding of law degrees to women continue, it will be at least two decades before the majority of lawyers are women.
 - E. The pay and status of female accountants, lawyers, and physicians today are governed by significantly different economic and sociological forces than were the pay and status of female teachers, bank tellers, and secretaries in the past.
- 69. An electric-power company gained greater profits and provided electricity to consumers at lower rates per unit of electricity by building larger-capacity more efficient plants and by stimulating greater use of electricity within its area. To continue these financial trends, the company planned to replace an old plant by a plant with triple the capacity of its largest plant.

The company's plan as described above assumed each of the following EXCEPT:

- A. Demand for electricity within the company's area of service would increase in the future.
- B. Expenses would not rise beyond the level that could be compensated for by efficiency or volume of operation, or both.
- C. The planned plant would be sufficiently reliable in service to contribute a net financial benefit to the company as a whole.

- D. Safety measures to be instituted for the new plant would be the same as those for the plant it would replace.
- E. The tripling of capacity would not result in insuperable technological obstacles to efficiency.
- 70. Of the countries that were the world's twenty largest exporters in 1953, four had the same share of total world exports in 1984 as in 1953. Theses countries can therefore serve as models for those countries that wish to keep their share of the global export trade stable over the years.

Which of the following, if true, casts the most serious doubt on the suitability of those four countries as models in the sense described?

- A. Many countries wish to increase their share of world export trade, not just keep it stable.
- B. Many countries are less concerned with exports alone than with he balance between exports and imports.
- C. With respect to the mix of products each exports, the four countries are very different from each other.
- D. Of the four countries, two had a much larger, and two had a much smaller, share of total world exports in 1970 than in 1984.
- E. The exports of the four countries range from 15 percent to 75 percent of the total national output.

Meteorologists say that if only they could design an accurate mathematical model of the atmosphere with all its complexities, they could forecast the weather with real precision. But this is an idle boast, immune to any evaluation, for any inadequate weather forecast would obviously be blamed on imperfections in the model.

- 71. Which of the following, if true, could best be used as a basis for arguing against the author's position that the meteorologists' claim cannot be evaluated?
 - A. Certain unusual configurations of data can serve as the basis for precise weather forecasts even though the exact causal mechanisms are not understood.
 - B. Most significant gains in the accuracy of the relevant mathematical models are accompanied by clear gains in the precision of weather forecasts.
 - C. Mathematical models of the meteorological aftermath of such catastrophic events as volcanic eruptions are beginning to be constructed.
 - D. Modern weather forecasts for as much as a full day ahead are broadly correct about 80 percent of the time.
 - E. Meteorologists readily concede that the accurate mathematical model they are talking about is not now in their power to construct.
- 72. Which of the following, if true, would cast the most serious doubt on the meteorologists' boast, aside from the doubt expressed in the passage above?
 - A. The amount of energy that the Earth receives from the Sun is monitored closely and is known not to be constant.
 - B. Volcanic eruptions, the combustion of fossil fuels, and several other processes that also cannot be quantified with any accuracy are known to have a significant and continuing impact on the constitution of the atmosphere.
 - C. As current models of the atmosphere are improved, even small increments in complexity will mean large increases in the number of computers required for the representation of the models.

- D. Frequent and accurate data about the atmosphere collected at a large number of points both on and above the ground are a prerequisite for the construction of a good model of the atmosphere.
- E. With existing models of the atmosphere, large scale weather patterns can be predicted with greater accuracy than can relatively local weather patterns.

Questions 73-74 are based on the following

In the United States, the Postal Service has a monopoly on first-class mail, but much of what is sent first class could be transmitted electronically. Electronic transmittal operators argue that if the Postal Service were to offer electronic transmission, it would have an unfair advantage, since its electronic transmission service could be subsidized from the profits of the monopoly.

- 73. Which of the following, if each is true, would allay the electronic transmittal operators' fears of unfair competition?
 - A. If the Postal Service were to offer electronic transmission, it could not make a profit on first-class mail.
 - B. If the Postal Service were to offer electronic transmission, it would have a monopoly on that kind of service.
 - C. Much of the material that is now sent by first-class mail could be delivered much faster by special package couriers, but is not sent that way because of cost.
 - D. There is no economy of scale in electronic transmission-that is, the cost per transaction does not go down as more pieces of information are transmitted.
 - E. Electronic transmission will never be cost-effective for material not sent by first-class mail such as newspapers and bulk mail.
- 74. Which of the following questions can be answered on the basis of the information in the passage above?
 - A. Is the Postal Service as efficient as privately owned electric transmission services?
 - B. If private operators were allowed to operate first-class mail services, would they choose to do so?
 - C. Do the electronic transmittal operators believe that the Postal Service makes a profit on first-class mail?
 - D. Is the Postal Service prohibited from offering electronic transmission services?
 - E. Is the Postal Service expected to have a monopoly on electronic transmission?
- 75. Lists of hospitals have been compiled showing which hospitals have patient death rates exceeding the national average. The data have been adjusted to allow for differences in the ages of patients.

Each of the following, if true, provides a good logical ground for hospitals to object to interpreting rank on these lists as one of the indices of the quality of hospital care EXCEPT:

- A. Rank order might indicate insignificant differences, rather than large differences, in numbers of patient deaths.
- B. Hospitals that keep patients longer are likely to have higher death rates than those that discharge patients earlier but do not record deaths of patients at home after discharge.

- C. Patients who are very old on admission to a hospital are less likely than younger patients to survive the same types of illnesses or surgical procedures.
- D. Some hospitals serve a larger proportion of low-income patients, who tend to be more seriously ill when admitted to a hospital.
- E. For-profit hospitals sometimes do not provide intensive-care units and other expensive services for very sick patients but refer or transfer such patients to other hospitals.
- 76. Teresa: Manned spaceflight does not have a future, since it cannot compete economically with other means of accomplishing the objectives of spaceflight.

 Edward: No mode of human transportation has a better record of reliability: two accidents in twenty-five years. Thus manned spaceflight definitely has a positive future.

Which of the following is the best logical evaluation of Edward's argument as a response to Teresa's argument?

- A. It cites evidence that, if true, tends to disprove the evidence cited by Teresa in drawing her conclusion.
- B. It indicates a logical gap in the support that Teresa offers for her conclusion.
- C. It raises a consideration that outweighs the argument Teresa makes.
- D. It does not meet Teresa's point because it assumes that there is no serious impediment to transporting people into space, but this was the issue raised by Teresa.
- E. It fails to respond to Teresa's argument because it does not address the fundamental issue of whether space activities should have priority over other claims on the national budget.
- 77. Black Americans are, on the whole, about twice as likely as White Americans to develop high blood pressure. This likelihood also holds for westernized Black Africans when compared to White Africans.
 - Researchers have hypothesized that this predisposition in westernized Blacks may reflect an interaction between western high-salt diets and genes that adapted to an environmental scarcity of salt.

Which of the following statements about present-day, westernized Black Africans, if true, would most tend to confirm the researchers' hypothesis?

- A. The blood pressures of those descended from peoples situated throughout their history in Senegal and Gambia, where salt was always available, are low.
- B. The unusually high salt consumption in certain areas of Africa represents a serious health problem.
- C. Because of their blood pressure levels, most White Africans have markedly decreased their salt consumption.
- D. Blood pressures are low among the Yoruba, who, throughout their history, have been situated far inland from sources of sea salt and far south of Saharan salt mines.
- E. No significant differences in salt metabolism have been found between those people who have had salt available throughout their history and those who have not.
- 78. The following proposal to amend the bylaws of an organization was circulated to its members for comment.

When more than one nominee is to be named for an office, prospective nominees must consent to nomination and before giving such consent must be told who the other nominees will be.

Which of the following comments concerning the logic of the proposal is accurate if it cannot be known who the actual nominees are until prospective nominees have given their consent to be nominated?

- A. The proposal would make it possible for each of several nominees for an office to be aware of who all of the other nominees are.
- B. The proposal would widen the choice available to those choosing among the nominees.
- C. If there are several prospective nominees, the proposal would deny the last nominee equal treatment with the first.
- D. The proposal would enable a prospective nominee to withdraw from competition with a specific person without making that withdrawal known.
- E. If there is more than one prospective nominee, the proposal would make it impossible for anyone to become a nominee.
- 79. Which of the following best completes the passage below?

In a survey of job applicants, two-fifths admitted to being at least a little dishonest. However, the survey may underestimate the proportion of job applicants who are dishonest, because

- A. some dishonest people taking the survey might have claimed on the survey to be honest
- B. some generally honest people taking the survey might have claimed on the survey to be dishonest
- C. some people who claimed on the survey to be at least a little dishonest may be very dishonest
- D. some people who claimed on the survey to be dishonest may have been answering honestly
- E. some people who are not job applicants are probably at least a little dishonest
- 80. Which of the following, if true, most serinously weakens the conclusion that cigarette companies could have dropped advertising without suffering economically?
 - A. Cigarette advertisements provide a major proportion of total advertising revenue for numerous magazines.
 - B. Cigarette promotion serves to attract first-time smokers to replace those people who have stopped smoking.
 - C. There exists no research conclusively demon-strating that increases in cigarette advertising are related to increases in smoking.
 - D. Advertising is so firmly established as a major business activity of cigarette manufacturers that they would be unlikely to drop it.
 - E. Brand loyalty is typically not very strong among those who smoke inexpensive cigarettes.

Questions 81-82 are based on the following.

The average life expectancy for the United States population as a whole is 73.9 years, but children born in Hawaii will live an average of 77 years, and those born in Louisiana,

- 71.7 years. If a newlywed couple from Louisiana were to begin their family in Hawaii, therefore, their children would be expected to live longer than would be the case if the family remained in Louisiana.
- 81. Which of the following, if true, would most seriously weaken the conclusion drawn in the passage?
 - A. Insurance company statisticians do not believe that moving to Hawaii will significantly lengthen the average Louisianian's life.
 - B. The governor of Louisiana has falsely alleged that statistics for his state are inaccurate.
 - C. The longevity ascribed to Hawaii's current population is attributable mostly to genetically determined factors.
 - D. Thirty percent of all Louisianians can expect to live longer than 77 years.
 - E. Most of the Hawaiian Islands have levels of air pollution well below the national average for the United States.
- 82. Which of the following statements, if true, would most significantly strengthen the conclusion drawn in the passage?
 - A. As population density increases in Hawaii, life expectancy figures for that state are likely to be revised downward
 - B. Environmental factors tending to favor longevity are abundant in Hawaii and less numerous in Louisiana
 - C. Twenty-five percent of all Louisianians who move to Hawaii live longer than 77 years.
 - D. Over the last decade, average life expectancy has risen at a higher rate for Louisianians than for Hawaiians.
 - E. Studies show that the average life expectancy for Hawaiians who move permanently to Louisiana is roughly equal to that of Hawaiians who remain in Hawaii.
- 83. Insurance Company X is considering issuing a new policy to cover services required by elderly people who suffer from diseases that afflict the elderly. Premiums for the policy must be low enough to attract customers. Therefore, Company X is concerned that the income from the policies would not be sufficient to pay for the claims that would be made.

Which of the following strategies would be most likely to minimize Company X's losses on the policies?

- A. Attracting middle-aged customers unlikely to submit claims for benefits for many years
- B. Insuring only those individuals who did not suffer any serious diseases as children
- C. Including a greater number of services in the policy than are included in other policies of lower cost
- D. Insuring only those individuals who were rejected by other companies for similar policies
- E. Insuring only those individuals who are wealthy enough to pay for the medical services
- 84. A program instituted in a particular state allows parents to prepay their children's future college tuition at current rates. The program then pays the tuition annually for the child at

any of the state's public colleges in which the child enrolls. Parents should participate in the program as a means of decreasing the cost for their children's college education.

Which of the following, if true, is the most appropriate reason for parents not to participate in the program?

- A. The parents are unsure about which pubic college in the state the child will attend.
- B. The amount of money accumulated by putting the prepayment funds in an interest-bearing account today will be greater than the total cost of tuition for any of the pubic colleges when the child enrolls.
- C. The annual cost of tuition at the state's pubic colleges is expected to increase at a faster rate than the annual increase in the cost of living
- D. Some of the state's public colleges are contemplating large increases in tuition next year.
- E. The prepayment plan would not cover the cost of room and board at any of the state's public colleges.
- 85. Company Alpha buys free-travel coupons from people who are awarded the coupons by Bravo Airlines for flying frequently on Bravo airplanes. The coupons are sold to people who pay less for the coupons than they would pay by purchasing tickets from Bravo. This marketing of coupons results in lost revenue for Bravo.

To discourage the buying and selling of free-travel coupons, it would be best for Bravo Airlines to restrict the

- A. number of coupons that a person can be awarded in a particular year
- B. use of the coupons to those who were awarded the coupons and members of their immediate families
- C. days that the coupons can be used to Monday through Friday
- D. amount of time that the coupons can be used after they are issued
- E. number of routes on which travelers can use the coupons
- 86. The ice on the front windshield of the car had formed when moisture condensed during the night. The ice melted quickly after the car was warmed up the next morning because the defrosting vent, which blows only on the front windshield, was turned on full force.

Which of the following, if true, most seriously jeopardizes the validity of the explanation for the speed with which the ice melted?

- A. The side windows had no ice condensation on them.
- B. Even though no attempt was made to defrost the back window, the ice there melted at the same rate as did the ice on the front windshield.
- C. The speed at which ice on a window melts increases as the temperature of the air blown on the window increases.
- D. The warm air from the defrosting vent for the front windshield cools rapidly as it dissipates throughout the rest of the car.
- E. The defrosting vent operates efficiently even when the heater, which blows warm air toward the feet or faces of the driver and passengers, is on.
- 87. To prevent some conflicts of interest, Congress could prohibit high-level government officials from accepting positions as lobbyists for three years after such officials leave

government service. One such official concluded, however, that such a prohibition would be unfortunate because it would prevent high-level government officials from earning a livelihood for three years.

The official's conclusion logically depends on which of the following assumptions?

- A. Laws should not restrict the behavior of former government officials.
- B. Lobbyists are typically people who have previously been high-level government officials.
- C. Low-level government officials do not often become lobbyists when they leave government service.
- D. High-level government officials who leave government service are capable of earning a livelihood only as lobbyists.
- E. High-level government officials who leave government service are currently permitted to act as lobbyists for only three years.
- 88. A conservation group in the United States is trying to change the long-standing image of bats as frightening creatures. The group contends that bats are feared and persecuted solely because they are shy animals that are active only at night.

Which of the following, if true, would cast the most serious doubt on the accuracy of the group's contention?

- A. Bats are steadily losing natural roosting places such as caves and hollow trees and are thus turning to more developed areas for roosting.
- B. Bats are the chief consumers of nocturnal insects and thus can help make their hunting territory more pleasant for humans.
- C. Bats are regarded as frightening creatures not only in the United States but also in Europe, Africa, and South America.
- D. Raccoons and owls are shy and active only at night; yet they are not generally feared and persecuted.
- E. People know more about the behavior of other greatly feared animal species, such as lions, alligators, and snakes, than they do about the behavior of bats.
- 89. Meteorite explosions in the Earth's atmosphere as large as the one that destroyed forests in Siberia, with approximately the force of a twelve-megaton nuclear blast, occur about once a century.

The response of highly automated systems controlled by complex computer programs to unexpected circumstances is unpredictable.

Which of the following conclusions can most properly be drawn, if the statements above are true, about a highly automated nuclear-missile defense system controlled by a complex computer program?

- A. Within a century after its construction, the system would react inappropriately and might accidentally start a nuclear war.
- B. The system would be destroyed if an explosion of a large meteorite occurred in the Earth's atmosphere.
- C. It would be impossible for the system to distinguish the explosion of a large meteorite from the explosion of a nuclear weapon.
- D. Whether the system would respond inappropriately to the explosion of a large meteorite would depend on the location of the blast.

- E. It is not certain what the system's response to the explosion of a large meteorite would be, if its designers did not plan for such a contingency.
- 90. Defense Department analysts worry that the ability of the United States to wage a prolonged war would be seriously endangered if the machine-tool manufacturing base shrinks further. Before the Defense Department publicly connected this security issue with the import quota issue, however, the machine-tool industry raised the national security issue in its petition for import quotas.

Which of the following, if true, contributes most to an explanation of the machine-tool industry's raising the issue above regarding national security?

- A. When the aircraft industries retooled, they provided a large amount of work for tool builders.
- B. The Defense Department is only marginally concerned with the effects of foreign competition on the machine-tool industry.
- C. The machine-tool industry encountered difficulty in obtaining governmental protection against imports on grounds other than defense.
- D. A few weapons important for defense consist of parts that do not require extensive machining.
- E. Several federal government programs have been designed which will enable domestic machine-tool manufacturing firms to compete successfully with foreign toolmakers.

The fewer restrictions there are on the advertising of legal services, the more lawyers there are who advertise their services, and the lawyers who advertise a specific service usually charge less for that service than lawyers who do not advertise. Therefore, if the state removes any of its current restrictions, such as the one against advertisements that do not specify fee arrangements, overall consumer legal costs will be lower than if the state retains its current restrictions.

- 91. If the statements above are true, which of the following must be true?
 - A. Some lawyers who now advertise will charge more for specific services if they do not have to specify fee arrangements in the advertisements.
 - B. More consumers will use legal services if there are fewer restrictions on the advertising of legal services.
 - C. If the restriction against advertisements that do not specify fee arrangements is removed, more lawyers will advertise their services.
 - D. If more lawyers advertise lower prices for specific services, some lawyers who do not advertise will also charge less than they currently charge for those services.
 - E. If the only restrictions on the advertising of legal services were those that apply to every type of advertising, most lawyers would advertise their services
- 92. Which of the following, if true, would most seriously weaken the argument concerning overall consumer legal costs?
 - A. The state has recently removed some other restrictions that had limited the advertising of legal services.
 - B. The state is unlikely to remove all of the restrictions that apply solely to the advertising of legal services.
 - C. Lawyers who do not advertise generally provide legal services of the same quality as those provided by lawyers who do advertise.

- D. Most lawyers who now specify fee arrangements in their advertisements would continue to do so even if the specification were not required.
- E. Most lawyers who advertise specific services do not lower their fees for those services when they begin to advertise.
- 93. Opponents of laws that require automobile drivers and passengers to wear seat belts argue that in a free society people have the right to take risks as long as the people do not harm others as a result of taking the risks. As a result, they conclude that it should be each person's decision whether or not to wear a seat belt.

Which of the following, if true, most seriously weakens the conclusion drawn above?

- A. Many new cars are built with seat belts that automatically fasten when someone sits in the front seat.
- B. Automobile insurance rates for all automobile owners are higher because of the need to pay for the increased injuries or deaths of people not wearing seat belts.
- C. Passengers in airplanes are required to wear seat belts during takeoffs and landings.
- D. The rate of automobile fatalities in states that do not have mandatory seat-belt laws is greater than the rate of fatalities in states that do have such laws.
- E. In automobile accidents, a greater number of passengers who do not wear seat belts are injured than are passengers who do wear seat belts.
- 94. The cost of producing radios in Country Q is ten percent less than the cost of producing radios in Country Y. Even after transportation fees and tariff charges are added, it is still cheaper for a company to import radios from Country Q to Country Y than to produce radios in Country Y.

The statements above, if true, best support which of the following assertions?

- A. Labor costs in Country Q are ten percent below those in Country Y.
- B. Importing radios from Country Q to Country Y will eliminate ten percent of the manufacturing jobs in Country Y.
- C. The tariff on a radio imported from Country Q to Country Y is less than ten percent of the cost of manufacturing the radio in Country Y.
- D. The fee for transporting a radio from Country Q to Country Y is more than ten percent of the cost of manufacturing the radio in Country Q.
- E. It takes ten percent less time to manufacture a radio in Country Q than it does in Country Y.
- 95. During the Second World War, about 375,000 civilians died in the United States and about 408,000 members of the United States armed forces died overseas. On the basis of those figures, it can be concluded that it was not much more dangerous to be overseas in the armed forces during the Second World War than it was to stay at home as a civilian.

Which of the following would reveal most clearly the absurdity of the conclusion drawn above?

- A. Counting deaths among members of the armed forces who served in the United States in addition to deaths among members of the armed forces serving overseas
- B. Expressing the difference between the numbers of deaths among civilians and members of the armed forces as a percentage of the total number of deaths

- C. Separating deaths caused by accidents during service in the armed forces from deaths caused by combat injuries
- D. Comparing death rates per thousand members of each group rather than comparing total numbers of deaths
- E. Comparing deaths caused by accidents in the United States to deaths caused by combat in the armed forces.
- 96. One state adds a 7 percent sales tax to the price of most products purchased within its jurisdiction. This tax, therefore, if viewed as tax on income, has the reverse effect of the federal income tax: the lower the income, the higher the annual percentage rate at which the income is taxed.

The conclusion above would be properly drawn if which of the following were assumed as a premise?

- A. The amount of money citizens spend on products subject to the state tax tends to be equal across income levels.
- B. The federal income tax favors citizens with high incomes, whereas the state sales tax favors citizens with low incomes.
- C. Citizens with low annual incomes can afford to pay a relatively higher percentage of their incomes in state sales tax, since their federal income tax is relatively low.
- D. The lower a state's sales tax, the more it will tend to redistribute income from the more affluent citizens to the rest of society.
- E. Citizens who fail to earn federally taxable income are also exempt from the state sales tax.
- 97. The average age of chief executive officers (CEO's) in a large sample of companies is 57. The average age of CEO's in those same companies 20 years ago was approximately eight years younger. On the basis of those data, it can be concluded that CEO's in general tend to be older now.

Which of the following casts the most doubt on the conclusion drawn above?

- A. The dates when the CEO's assumed their current positions have not been specified.
- B. No information is given concerning the average number of years that CEO's remain in office.
- C. The information is based only on companies that have been operating for at least 20 years.
- D. Only approximate information is given concerning the average age of the CEO's 20 years ago.
- E. Information concerning the exact number of companies in the sample has not been given.
- 98. Surveys show that every year only 10 percent of cigarette smokers switch brands. Yet the manufacturers have been spending an amount equal to 10 percent of their gross receipts on cigarette promotion in magazines. It follows from these figures that inducing cigarette smokers to switch brands did not pay, and that cigarette companies would have been no worse off economically if they had dropped their advertising.

Of the following, the best criticism of the conclusion that inducing cigarette smokers to switch brands did not pay is that the conclusion is based on

- A. computing advertising costs as a percentage of gross receipts, not of overall costs
- B. past patterns of smoking and may not carry over to the future
- C. the assumption that each smoker is loyal to a single brand of cigarettes at any one time
- D. the assumption that each manufacturer produces only one brand of cigarettes
- E. figures for the cigarette industry as a whole and may not hold for a particular company
- 99. Toughened hiring standards have not been the primary cause of the present staffing shortage in public schools. The shortage of teachers is primarily caused by the fact that in recent years teachers have not experienced any improvements in working conditions and their salaries have not kept pace with salaries in other professions.

Which of the following, if true, would most support the claims above?

- A. Many teachers already in the profession would not have been hired under the new hiring standards.
- B. Today more teachers are entering the profession with a higher educational level than in the past.
- C. Some teachers have cited higher standards for hiring as a reason for the current staffing shortage.
- D. Many teachers have cited low pay and lack of professional freedom as reasons for their leaving the profession.
- E. Many prospective teachers have cited the new hiring standards as a reason for not entering the profession.
- 100. A proposed ordinance requires the installation in new homes of sprinklers automatically triggered by the presence of a fire. However, a home builder argued that because more than ninety percent of residential fires are extinguished by a household member, residential sprinklers would only marginally decrease property damage caused by residential fires.

Which of the following, if true, would most seriously weaken the home builder's argument?

- A. Most individuals have no formal training in how to extinguish fires.
- B. Since new homes are only a tiny percentage of available housing in the city, the new ordinance would be extremely narrow in scope.
- C. The installation of smoke detectors in new residences costs significantly less than the installation of sprinklers.
- D. In the city where the ordinance was proposed, the average time required by the fire department to respond to a fire was less than the national average.
- E. The largest proportion of property damage that results from residential fires is caused by fires that start when no household member is present.

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