WRITTEN MATERIAL

I. PREPARING WRITTEN MATERIAL

- 1. Arranging Sentences in Order
- 1. Overview: Arranging Sentences in Order:

Arranging scrambled sentences into an order that makes the most sense is one type of question found on exams. It is very important to remember that they are looking for the best of the four possible choices, and that the best choice of all may not even be one of the answers you're given to choose from.

There is no right way to do these problems. Many people have found it helpful to first write out the order of the sentences, as they would have arranged them, on their scrap paper before looking at the possible answers. If their optimum answer is there, this can save them some time. If it isn't, this method can still give insight into solving the problem. Others find it most helpful to just go through each of the possible choices, contrasting each as they go along. You should use whatever method feels comfortable and works, for you.

While most of these types of questions are not that difficult, we've added a higher percentage of the difficult type, just to give you more practice. Usually there are only one or two questions on this section that contain such subtle distinctions that you're unable to answer confidently, and you then may find yourself stuck deciding between two possible choices, neither of which you're crazy about. By referring to the Explanation of Answers whenever you miss a question, and filling out the Diagnostic Worksheet, you should find that your ability to do this well will improve. It's also important, if a review of the exam is offered, to go and find out what the correct answers were. This will also give you the opportunity to try and contest any answer you don't feel was correct.

Questions involving both four and five sentences have appeared on exams, so we're giving you both types here. We suggest you do these questions in groups of five, consulting the Diagnostic Worksheet and Explanation of Answers for any that you miss. It's a good idea to do them again about a week before the exam. Good Luck!

- 2. Practice Problems: Arranging Sentences in Order
 The following sentences need to be arranged in an order that makes sense. Select the letter preceding the sequence that you feel represents the best sentence order.
- 1. 1. Others prefer questions that reflect how accurately they read.
 - 2. Most test takers, however, would prefer to spend their Saturday morning grocery shopping or even watching cartoons with their children.
 - 3. But some people actually enjoy answering the math questions on exams.

- 4. Taking promotional examinations is usually an anxiety producing past time.
 - a. 2 3 1 4
- c. 4 3 1 2
- b. 3 4 2 1
- d. 4 1 3 2
- 3. 1. For example, a conference on child care in industry that costs \$100 to attend may be inaccessible to child care workers who earn less than that weekly.
 - 5. Accessibility means more than being able to get in the front door.
 - 6. The structure of an event, the language used, the attitudes represented by the service providers, and the cost also may make an event more or less accessible.
 - 7. Further, non-availability of child care at an event may prevent mothers of small children from attending.
 - a. 3 2 1 4
- c. 3 4 1 2
- b. 2 4 1 3
- d. 2 3 1 4
- 4 1. When a historian interprets these records, they reveal much more than simply facts and figures.
 - 8. To discover how ordinary people lived in a community, historians must go beyond the obvious sources and sift through a variety of documents and objects.
 - 9. Social historians today are more concerned with the lives of ordinary people than those of the famous, rich, or powerful.
 - 10. Marriage and birth certificates, deeds, contracts, company logs, military enlistment records, and photographs all can tell a historian a great deal about day-to-day life.
 - a. 1 4 2 3
- c. 3 2 4 1
- b. 2 4 1 3 d. 2 1 4 3
- 5. 1. In spite of this overkill capability, world leaders continue to insist that more weapons are needed.
 - 1. According to recent estimates, there are 40,000 to 50,000 nuclear weapons existing in the world today.
 - 2. To put it differently, it is the equivalent of 13 billion tons of TNT, which is more than three tons for every person on the earth.
 - 3. The combined explosive power of these weapons is equivalent to one million bombs like the one dropped on Hiroshima.
 - a. 2 1 3 4
- c. 2 4 3 1
- b. 4 1 2 3
- d. 2 3 4 1
- 6. 1. Western culture has not sufficiently distinguished between assertiveness and aggression.
 - 1. Any show of assertive firmness or anger is often equated with aggression.
 - 2. Women, in particular, are told that their natural, assertive behavior is aggressive and masculine.
 - 3. Thus, many mislabel their own naturally assertive impulses as negative, even disturbed, urges that should be controlled.
 - a. 2 1 3 4
- c. 1 3 4 2
- b. 1 2 3 4 d. 1 3 2 4

- 6. 1. New medical research appears to strongly support this claim.
 - 2. These products include such items as bread that is partly made of sawdust, and breakfast cereals that are 85% sugar.
 - 3. Yet people persist in putting every imaginable type of "food product" into their bodies.
 - 4. Anthropologists have found that the phrase "you are what you eat" has existed for years in many cultures around the globe.
 - a. 4 1 3 2
- c. 4 3 2 1
- b. 3 2 1 4
- d. 1 3 2 4
- 7. 1. For instance, plane fare is usually higher than bus or train fare, but one would probably incur fewer food and lodging expenses.
 - 5. One should consider not only the actual cost of the different modes of transportation, but also the amount of time required to reach one's destination.
 - 6. Thus, the overall cost of a long trip might be minimized by using the more expensive means of transportation.
 - 7. Business travel should be accomplished in the most economical way.
 - a. 1 2 3 4
 - c. 4 1 3 2
 - b. 4 2 1 3
- d. 2 4 3 1
- 8. 1. When these factors seem too overwhelming, "burnout" is the result.
 - 2. Several factors seem too overwhelming, "burnout" is the result.
 - 3. "Burnout" describes a need to escape from a work situation because the job is consuming too much of one's energy and life.
 - 4. Lack of clarity around organizational and personal goals, uncertainty of rewards, lack of job security, lack of organizational and personal processes for saying "no," and poor work habits all can contribute to an unsatisfying job situation.
 - a. 3 2 4 1
- c. 3 4 2 1
- b. 2 3 4 1
- d. 1 3 4 2
- 9. 1. During the strike the workers received assistance from the IWW and financial support from outside sympathizers, such as Helen Keller.
 - 2. In protest, the workers in the town struck the mills.
 - 3. In 1912, textile operators responded to protective labor legislation that reduced the hours women could legally work by cutting wages.
 - 4. The state's subsequent investigation of living and working conditions resulted in a report which touched no consideration central to an understanding of women as workers and strike leaders.
 - a. 3 4 1 2
- c. 3 1 4 2
- b. 3 2 1 4 d. 4 2 1 3

- 10. 1. Exposure to low doses of ionizing radiation can cause cancer twelve to forty years later and genetic disease and abnormalities in future generation.
 - 2. Radiation harms human bodies by ionizing or altering the electrical charge of atoms and molecules that comprise the body's cells.
 - 3. Even the smallest dose can affect us because the effects of radiation are cumulative.
 - 4. Thus, there is no safe level of radiation.
 - 5. a. 3 4 1 3
- c. 2 4 3 1
- b. 2 4 1 3
- d. 2 3 1 4
- 11. 1. This approach to mental measurement fell out of favor when it became apparent that there was no correlation between performance on the tests and actual scholastic achievement.
 - 2. The work of Alfred Binet in France suggested that questions tapping reasoning skills and general knowledge provided a more direct means of measuring intelligence.
 - 3. With the development of mental tests, the variability hypothesis began to serve not as an explanation for women's inferior social position but as a justification for it.
 - 4. The strength of a student's grip could not predict the student's grades in mathematics.
 - 8. a. 2 3 1 4 5
- c. 5 1 3 4 2
- b. 5 3 1 4 2
- d. 3 5 1 4 2
- 12. 1. Only because of the rapidity of the enzyme's action can the carbon dioxide be freed fast enough from its compounds to leave the blood during that moment in the alveolus when it is separated from the air by the thinnest of membranes.
 - 2. The result is that each is broken into one water and one carbon dioxide molecule.
 - 3. Our ability to rid ourselves of CO₂ through exhaled air is then utterly dependent on the presence of these critically located atoms of zinc.
 - 4. During the one second that the blood if racing through the tiny capillaries of the lung, the single atom of zinc that is set in the center of the enzyme carbonic anhydrase is brought into contact with 600,000 of its target molecule, carbonic acid.
 - 5. Yet the total amount of this mineral in the body is so little that it was, up until a few years ago, considered to be of no significance.
 - a. 3 4 5 1 2
- c. 4 2 1 3 5
- b. 1 2 3 4 5
- d. 3 4 5 2 1
- 13. 1. The wise person realizes that everything everyone wants is already contained within himself or herself, and he or she begins to embody these qualities rather than search for them from others.
 - 2. What we usually don't realize is that everything everyone wants is already contained within himself or herself, and he or she begins to embody these qualities rather than search for them from others.
 - 3. Everyone is wanting it, but few people have the courage to be the one to give it.

- 4. Usually when we relate to others, our normal tendency is to think, "I wonder if he or she likes me? I wonder if he or she thinks well of me?"
- 5. So normally, we are hoping for approval from those who are hoping for our approval.

- 14. 1. At an earlier point in this process, some pure energy slowed down to a speed below that of light, at which point it congealed into mass; and at some point in the future, should the equilibrium of this stable form of energy be disturbed in any way, it can shed its temporary property called mass and become pure energy once more.
 - 2. The moment its mass disappears, an energy pattern no longer projects a material appearance.
 - 3. The manifestation we know as "matter" is simply one of the attendant effects of this energy's transformation into mass; thus, an object is really more of an event that it is a thing of substance.
 - 4. Every material object, be it our own body, a tree, or a mountain, is essentially just a temporary phase in a dynamic process involving a certain amount of energy.
 - 5. The fact that the mass of any material entity is nothing but a specific quantity of energy indicates that we can no longer look at the world around us as a collection of static objects, for matter is not composed of solid substance, it is in fact made up of dancing patterns of energy.

- 15. 1. As people get jobs, or move up from poverty-level to better paying employment, they stop receiving benefits and start paying taxes, decreasing the federal deficit.
 - 2. The strategy of putting people to work in civilian re-industrialization in clean energy development, public transportation and urban reconstruction would not only provide socially useful products, but would lower social service costs and reduce the deficit as well.
 - 3. Thus job creation programs are often a bargain for taxpayers, if the reductions in the costs of other programs and the increase in tax payments are counted.
 - 4. Only poor or unemployed people are eligible for food stamps, welfare, unemployment compensation, housing subsidies and so on.
 - 5. The best way to cut costs of many social programs is to create jobs.

B. Paragraph and Sentence Recognition

1. Overview: Paragraph Recognition

The other type of question usually found in this section tests your ability to identify good sentence and paragraph building from a given set of factors or ideas. Like the sentence arranging most of these questions are not difficult for most people. There are again, however, usually one or two tricky, frustrating questions. If you follow the procedure we've outlined in the previous section, your ability to do these should improve.

With the "paragraph" type of question, it's important to answer using only the given facts or concepts. Recognizing complete ideas, transitions, unsupported opinions, incorrect word usage, the tone of the sentences, and logical order are also important. You'll need to eliminate paragraphs that don't include all the facts and concepts presented, that embellish the facts and concepts, or that slant these components. We suggest you do these questions two at a time, consulting the Explanation of Answers and Diagnostic Worksheet when you miss a question. It's also a good idea to do these again a week before the exam.

Good Luck!

2. Practice Problems: Paragraph and Sentence Recognition

Select the letter representing the paragraph in each of the questions below that best expresses the ideas contained in the sentences above it.

- 16. 1. Math anxiety is very common in our society.
 - 2. One of the major reasons for this is that good math teachers are relatively rare, particularly in the secondary schools.
 - 3. Yet math anxiety can be overcome if people work at it.
 - 4. This has been confirmed in a number of studies conducted by Deborah Hallett of Harvard University.
 - a. Math anxiety is very common in our society.
 - b. Math anxiety, found primarily in women, is very prevalent in our society. One of the major reasons for the anxiety is the fact that good secondary school math teachers are rare. Yet a number of studies conducted by Deborah Hallett of Harvard University have shown that math anxiety can be overcome if people work diligently at it.
 - c. Math anxiety is very common in our society, largely because of the lack of good math teachers in the secondary schools. Studies conducted by Deborah Hallett of Harvard University have confirmed, however, that math anxiety can be overcome if people work diligently at ridding themselves of it.
 - d. Math anxiety, which is very common in our society, largely because of the lack of good math

teachers in the secondary schools. Math anxiety can be overcome if students diligently work at it. This has been demonstrated in studies conducted by Deborah Hallett of Harvard University.

- 17. 1. People often react not to what is said, but to how it is said.
 - 2. Experts estimate that 65% of our communication is nonverbal, only 35% verbal.
 - 3. This "body language" includes not only gestures, facial expressions, posture, and body movements, but also tone and pitch of voice, rate of speaking, habitual mannerisms, appropriate and inappropriate laughter, and lots more.
 - 4. Although much of this nonverbal communication is unconscious or unintentional, most of it is understood.
 - a. "Body language" is the unconscious, nonverbal communication that experts say we use 65% of the time. Gestures, facial expressions, posture, body movements, tone and pitch of voice, rate of speaking, habitual mannerisms, and laughter are examples of nonverbal communication.
 - b. If it seems as if people aren't responding to what you say, it could be they are reacting to how you say it. Experts say that only 35% of what we communicate is in what we say. The other 65% of our communication is nonverbal "body language" including gestures, facial expressions, posture, body movements, tone and pitch of voice, rate of speaking, habitual mannerisms, appropriate and inappropriate laughter, and lots more. So, often things you aren't conscious of or don't intend to communicate are understood by others.
 - c. People often react not to what is said, but to how it is said. Experts estimate that 65% of our communication is nonverbal, only 35% verbal. Nonverbal communication or "body language" includes gestures, facial expressions, posture, body movements, rate of speaking, tone and pitch of voice, habitual mannerisms, use of laughter, and lots more. Although it may be unconscious or unintentional, most of it is understood.
 - d. People often react not to what is said, but to how it is said. That's because experts estimate that only 35% of our communication is verbal while 65% is nonverbal. Gestures, facial expressions, posture, and body movements as well as tone and pitch of voice, rate of speaking, habitual mannerisms, and appropriate and inappropriate laughter are all examples of "body language."
- 18. 1. Secretaries often complain that they feel invisible.
 - 2. They must take notes at board meetings where they see others take credit for work done by secretaries.
 - 3. They work long hours to complete tasks while their bosses are out to lunch.
 - 4. It is usually the secretaries, not the bosses, who have the full information of the office at their fingertips.
 - a. Although it is usually the secretaries, not the bosses, who have the full information of the office at their fingertips, secretaries often complain that they feel invisible. They work long hours to complete tasks while their bosses are out to lunch, and they are asked to take notes at board meetings while other take credit for their achievements.

- b. Secretaries are the invisible presence at board meetings whose work is claimed by others. Bosses unfeelingly absent themselves from the office while the secretaries work without a break.
- c. Secretaries are the unacknowledged champions of the small office. Besides working long hours while the boss is out to lunch, they are asked to take notes after hours at board meetings. There, their own contributions seem invisible because the boss talks about the work as if it was entirely his own.
- d. Secretaries seem to quietly accept the fact that the boss takes credit for their achievements, but, in fact, they do complain about feeling invisible. Secretaries want their long hours and unselfish labor to be acknowledged.
- 19. 1. They are receptive to ideas and concepts even if they are of an experimental nature.
 - 2. Even if such risk-taking produces many dry wells at first, they know that such action frequently delivers a real gusher.
 - 3. Creative, progressive organizations are ever alert to try new techniques and methods.
 - 4. These organizations feel that they can take chances.
 - a. Creative, progressive organizations are receptive to ideas even if they are of an experimental type. They feel they can afford to take these risks because they may then strike "oil."
 - b. Creative, progressive organizations are ever alert to try new techniques and methods, even if they are of an experimental nature. These organizations feel that they can afford to take chances, even if such risk-taking does not produce much of the consequence at first. They know that risk-taking frequently leads to very favorable results.
 - c. Creative, progressive organizations are receptive to ideas even if they are of an experimental type. They feel they can take chances, even if such risk-taking does not produce much consequences at first. They know that frequently risk-taking will lead to very favorable results.
 - d. Creative, dynamic organizations feel that they can afford to take chances, make leaps into the unknown, and venture occasionally into pioneering quicksand. Unlike their competitors, they know that such actions, even at the risk of producing many dry wells at first, will frequently deliver a real gusher.
- 20. 1. Emma Willard was an important leader in the nineteenth century movement for women's education.
 - 2. She founded the Troy Female Seminary, one of the first schools for girls in the U.S.
 - 3. She developed a national network of women to promote women's education through schools and voluntary associations.
 - 4. The Troy Female Seminary, now known as the Emma Willard School, still continues to provide quality education for girls.
 - a. Emma Willard, the most significant figure in the nineteenth century movement for women's education, developed a network of women involved with schools and voluntary associations

- to promote the education of women. She also founded the first school for girls in America, the Troy Female Seminary which still exists today as the Emma Willard School.
- b. The Troy Female Seminary, the first school in America for girls, was founded by Emma Willard, an important leader of the nineteenth century movement for women's education who developed a national network of women to promote women's education through schools and voluntary associations. Today, her school is known as the Emma Willard School and continues its tradition of quality education for girls.
- c. The Troy Female Seminary founded by Emma Willard, the nineteenth century leader of the fight for women's education, was one of the first schools for girls in America. Through her voluntary efforts, a national network to promote women's education grew. The effort of providing quality education for girls still continues in Troy, New York.
- d. Emma Willard, who founded the first school for girls, the Troy Female Seminary (now known as the Emma Willard School) led the fight for women's education in the nineteenth century. She promoted women's education by networking women involved in schools and voluntary associations across the nation. She died in 1870.
- 21. 1. You cannot do your best on a problem unless you are motivated.
 - 2. However, excessive motivation to succeed quickly can inhibit the creative process.
 - 3. The tortoise and the hare phenomenon is often apparent in problem solving.
 - 4. If the rabbit spends so little time on conceptualization that the rabbit merely chooses the first answers that occur, inconsistency (which the tortoise depends on), is almost guaranteed.
 - a. Motivation is important in problem solving, but excessive motivation can inhibit the creative process. The tortoise and the hare phenomenon then becomes apparent. If the problem solver, looking for a quick solution, merely chooses the first answers that occur, inconsistency is almost guaranteed, and the "tortoise" will most likely solve the problem first.
 - b. You cannot do your best on a problem unless you are motivated. The tortoise and the hare phenomenon is often apparent when there is excessive motivation on the part of the "rabbit." When this occurs, the "rabbit" will jump to conclusions and the "tortoise" will solve the problem first.
 - c. You need motivation in order to solve problems, but motivation can be an enemy if it's excessive. Problem solvers should avoid the "hare" approach to solving problems.
 - d. Motivation is important in problem solving, but excessive motivation can inhibit the creative process. The problem solver, if he or she tries to succeed too quickly, will then exhibit the same characteristics as the hare in the classic "tortoise and the hare" example, and will lose sight of the problem as a result.
- 22. 1. Some people who have not prepared adequately for a promotional examination become discouraged about one-third of the way through the math section of the exam.
 - 2. They begin to feel that they must be really stupid, and start dreading the day the test scores will come in the mail.
 - 3. Then they rush through the test in a daze, sometimes not even bothering to read the questions

- completely.
- 4. All of these behaviors could have been avoided if they took the time to prepare adequately for the examination.
 - a. Some people become discouraged about one-third of the way through the math section of an exam and rush through the exam in order to shorten the unpleasantness. They also think they're really stupid, and dread the day they received their scores. All of this behavior could have been avoided if they prepared for the exam.
 - b. When people become discouraged during an exam they rush through it, think they're stupid, and dread getting their test scores. All of this could be avoided if they prepared adequately.
 - c. Some people who have not prepared adequately for a promotional examination become discouraged about one-third the way through the math section. They begin to dread the arrival of their test scores, feel that they are stupid, and rush through the test in a daze. They may not even bother to read the questions completely. If they had prepared adequately for the exam, these behaviors could have been avoided.
 - d. All negative test taking behaviors could be avoided if people prepared adequately for promotional examinations, especially the math portions.
- 23. 1. Today, knowledge of videotaping could be important to any organizations.
 - 2. It is an accessible, relatively inexpensive, and versatile recording method that combines the advantages of slides, movies, and tape recorders.
 - 3. Since many cable television companies make training and equipment available at little or no cost, videotaping has become a viable method of reaching audiences.
 - 4. Many books are available for people interested in information on videotaping and its applications to their field.
 - a. Videotaping is an accessible, inexpensive, and versatile way of recording events and information. Because it combines the advantages of slides, movies, and tape recorders, it is important for all organizations to use videotape. Many "how-to" books are becoming available so there is no reason for any group to be without this valuable tool.
 - b. Because many cable television companies are making training and equipment available at little or no cost, videotaping is now a more accessible recording method, and every organization should take advantage of it. It combines the advantages of slides, movies, tape recorders, and books so it is vitally important knowledge to have in presenting interesting information about any field.
 - c. Videotaping has become an accessible, relatively inexpensive, and versatile way to record. Many cable television companies make training and equipment available at little or no cost. There are also many books that discuss videotaping and its application to different fields. A knowledge of videotaping, which combines the advantages of slides, movies, and tape recorders, could prove important to any organization today.
 - d. Today, a knowledge of videotaping could be important to any organization. It is a recording method that combines the advantages of slides, movies, and tape recorders. Videotaping has become a viable method of reaching audiences because many cable television companies

make training and equipment available at little or no cost. Books that describe video technology should be read by people who want to use this accessible, inexpensive, and versatile public relations tool for their organization.

- 24. 1. Layout is the arrangement of various printing elements, such as type, illustrations, and white space, in a pattern that attracts the eye and makes reading easy and convenient.
 - 2. The reader should never be aware of the layout.
 - 3. When the reader is conscious of it, his or her attention is distracted from the message.
 - 4. Invisibility is an important aspect of any good layout.
 - a. A good layout is necessary for easy and convenient reading. However, if a reader becomes aware of the arrangement of type, illustrations, and white space, there is a risk that he or she will not be consciously attracted to the message. A good layout must be invisible.
 - b. The key to a good layout design is invisibility. Arranging the various printing elements, such as type, illustrations, and white space, in a pattern that is attractive but not obtrusive makes reading easy and convenient. It is important that the design be subtle, though. If a reader becomes too conscious of how a page looks, he or she may be diverted from the message contained in the words and pictures on the page.
 - c. Layout is an important but invisible aspect of printing. The arrangement of type, illustrations, and white space on a page is what makes a reader aware of the layout.
 - d. A layout designer should always avoid distracting the reader with flashy arrangements of various printing elements, such as type, illustrations, and white space. If the pattern is visible, the layout won't serve its function and readers will complain that they have been distracted and inconvenienced.
- 25. 1. When given catnip, a typical cat will begin to exhibit odd behavior.
 - 2. Energetic rolling, jumping, darting, growling, and purring are among the reactions cats have to catnip.
 - 3. While cats eat the leaves of catnip, they seem to "get high" mainly from the odor.
 - 4. No on really understands why cats have such a peculiar response to catnip, but some think it serves as a tranquilizer while others regard it as a cat aphrodisiac.
 - a. While no one really knows why, cats certainly are attracted to catnip. Some people think it might be an aphrodisiac and some people think it is a tranquilizer, but what is certain is that cats typically react to it with strange, even frenzied behavior. They roll, jump, dart, growl, or purr in response to this herb. Although cats do eat catnip, it seems to be the odor that causes the change in behavior.
 - b. No one really understands why cats have such a peculiar response to catnip but, when given catnip, a typical cat will begin to act strangely. Energetic rolling, jumping, growling, purring and darting are some of the odd behaviors catnip causes in cats. In order for cats to react that way, smelling the herb seems to be more important than eating it.
 - c. Cats love catnip; it makes them roll around in ecstasy. It's both a tranquilizer and an aphrodisiac, and not only domestic cats, but lions and other big cats like catnip. Although

- they eat it, apparently it is catnip's odor that makes them react so strangely.
- d. When given catnip, typical cats behave oddly. Energetic rolling, jumping, darting, growling, and purring are among their peculiar responses to catnip. They "get high" mainly from the odor, but they also eat catnip. Regarded by some as a tranquilizer and others as an aphrodisiac, cats love catnip.

C. Answer Key: Arranging Sentences in Order and Paragraph and Sentence Recognition

1. c. 14. b 2. d 15. c 3. c 16. c 4. c 17. c 5. b 18. a 6. a 19. b 7. b 20. b 8. a 21. a 9. b 22 c

10. d

11. d

12. c 13. c 23. c 24. b 25. a

D. PROBLEM SOLVING DIAGNOSTIC WORKSHEET

This worksheet is designed to give insight into why a particular problem was answered incorrectly. For each question you missed, go through the checklist below and place the number of the question next to each trait exhibited. This should give you some idea of what problem solving behaviors you may need to work on.

Question Number (s)	Trait Exhibited
	1. I jumped to an incorrect conclusion.
	2. I got tired of reading and rereading the sentences, so I took a good guess.
	3. I had little confidence I could solve the problem.
	4. I made a careless error.
	5. I misinterpreted one of the sentences.
	6. I "followed a hunch" without checking it through.
	7. I worked mechanically because I knew it was hopeless.
	8. I didn't check my work.
	9. I selected the first choice that sounded good.
	10. I tried to answer without realizing that my understanding of one or more of the sentences was vague
	11. While the answer I selected was an acceptable answer, it was not the <u>best</u> of the four choices.
	12. I didn't try to visualize the problem.
	13. I didn't break the problem down into more easily understandable parts.

14. I didn't pay enough attention to transitions between sentences.

E. EXPLANATION OF ANSWERS

1. Arranging Sentences In Order

- 1. The answer is C. Choice A is suspect immediately because of the word "however" in Sentence Two, which is referring to something previously mentioned. The order of the sentences in Choice A also doesn't make much sense. Choice B is incorrect not only because the order of the sentences makes no sense, but also because the "but" at the beginning of Sentence Three obviously refers to something mentioned earlier. Choice D is incorrect because, while Sentence Four works well as the opening sentence, Sentence One makes no sense immediately following sentence Four. Choice C makes sense, and is the best choice of the four.
- 2. The answer is D. Sentences Three and Two are each given in the answers as possible first sentences. You will notice Sentence Three contains the word "also" which indicates that the idea presented here refers to one already expressed. Sentence Two is a more general statement and works better as a topic sentence in the sequence. You can then eliminate answers A and C as possibilities.

Choice B might work, but the word "further" and the idea presented in Sentence Four will support and explain Sentence One better than Sentence Two. Answer D works best because Sentence Three clarifies in more detail the definition of "accessibility" which is the idea expressed in the topic sentence. And in this sequence, Sentence Four follows Sentence One. Remember, you're looking for the best choice.

- 3. The answer is C. If you re-read the sentences, you would want to eliminate Choice A immediately because Sentence One is not the best sentence to begin the sequence. It contains the word "these" which obviously refers to something that came before. Both Choices B and D begin with Sentence Two and conclude with Sentence Three. While Sentence Two seems to work as an opening statement, Sentence Three does not conclude or sum up the thoughts expressed. It seems to present a new thought at the end of these sequences. However, in Choice C, Sentence Three opens the sequence and we see that Sentence Two works well following the idea expressed in Sentence Three, as Sentence Two clarifies how historians learn about "ordinary people." Here, the reference to "ordinary people" is a good clue.
- 4. The answer is C. In reviewing the possible answers, you will notice that only Sentence Two and Sentence Four are presented as possible first sentences in the sequence. Sentence Two begins three of the four possible answers, as you reread it, you see that it appears to work as a topic sentence. In Sentence Four, you'll notice the word "these" refers to a topic already

- mentioned so it is not the Sentences Three and Four would work better if they were juxtaposed, as the opening phrase of Sentence Three refers to the information in Sentence Four and the opening phrase of Sentence Four refers directly to the weapons mentioned in Sentence Two. The same is true in Choice D. Therefore, Choice C is the best possible answer.
- 5. The answer is B. Again, only two sentences are offered as a possible opening sentence. Sentence One is a general statement that provides a topic for the sequence. Sentence Two, the other possible choice, seems vague as a topic sentence; you want to ask "by whom? where? when?" Therefore, Sentence One provides a better beginning for the sequence. By ruling out Sentence Two as a first sentence, you can eliminate Choice A. In the three remaining choices, the second sentence in the sequence can be only Sentence Two or Three. Neither appears illogical following Sentence One. Assertiveness and aggression are not only "not sufficiently distinguished" but "often equated." Hence, Sentence Two is the best choice as the next sentence in the sequence. Only Choice B has Sentence Two next. Quickly reading through the sentences in Choice B, you can see that this is a clear and logical arrangement. While Choice D is a "less stilted" sounding choice than Choice C, neither is as good a choice as B. Again, you are looking for the best of the four possible choices.
- 6. The answer is A. Choice B is incorrect not only because the sentence order makes little sense, but it's also suspect because Sentence Three begins with the word "yet," and is obviously referring to something stated earlier. Choice C makes sense until we get to the last sentence. In this order, Sentence One is out of place, and we don't know what "claim" is being referred to. Choice D is incorrect, not only because the sentence order makes little sense, but also because the "claim" that is being referred to is not mentioned until the last sentence.
- 7. The answer is B. You can eliminate answer A almost immediately. The first sentence of this sequence begins with the phrase "for instance" which requires a topic to be exemplifying. Answers B and C begin with Sentence Four, and answer D with Sentence Two. Both Sentence Four and Two are general statements that appear to be logical openings to the sequence. In answer B, Sentence Two further explicates the general thought presented in the first Sentence (which is Sentence Four). The third sentence in the sequence, Sentence One, offers an example of the idea presented in Sentence Two. And Sentence Three, which concludes this sequence, sums up the points made in the other three sentences. Thus, answer B seems to work. Answer C also begins with Sentence Four, and at a quick glance, this sequence seems to work. However, compared with sequence B it is much choppier. Sentence One might provide an example for the thought expressed in Sentence Four, but it works much better as clarification of Sentence Two. The meaning of both Sentences One and Three is clearer when following Sentence Two. So far, answer B is a better choice. In answer D, Sentence Four does not follow the more specific topic suggested by Sentence Two as a first sentence. And Sentence Three is illogical following Sentence Four: the word "thus" implies that the next thought is now readily apparent or will provide a summary of what preceded it.
- 8. The answer is A. Looking at the answers, you see that Sentences One, Two and Three are all

possible beginning sentences. But in Sentence One, "these factors" obviously refers to something preceding it, and Sentence Two is much too vague to open the sequence (involved in what?), so it also must refer to another statement. Sentence Three is an excellent general thesis statement. Only two of the answers begin with Sentence Three so you can rule out Choices B and D. Choices A and C both begin with Sentence Three and conclude with Sentence One so you must decide which is the best order for Sentences Two and Four. Sentence Four is clearly a list of the factors mentioned in Sentence Two so it should follow, as listed the factors and then mentioning that several factors might be involved is not an example of good writing. Therefore, Choice A is the correct sequence.

- 9. The answer is B. Sentences Three and Four are given as possible openings to the sequence. Sentence Three works well. Sentence Four is less clear, particularly because the word "subsequent" suggested something preceding. Sentence Three works better, so we can rule out Choice Four, which doesn't make much sense anyway. In the remaining three choices, Sentences Four, Two and One are possible second sentences. Sentences Four and Two are logical, but the information about the strike in Sentence One requires a strike to have been mentioned previously. You can, therefore, eliminate Choice C. In both the remaining choices A & B, the third sentence is Sentence One. In choice A, though, Sentence One is again illogical because the strike has not been mentioned. In addition, Sentence Four seems tacked on, and out of order. In Choice B, Sentence One provides support to the information introduced in Sentence Two.
- 10. The answer is D. Sentences Two and Three are the possible first sentences for the sequence given in the answers. Sentence One would be, but it is not one of the possible choices. Both seem to work as an introductory thought so it isn't possible to eliminate a choice based upon the first sentence. But in Choice A, the only sequence to begin with Sentence Three, Sentence Two as a conclusion seems tacked on. We can rule out Choice A, therefore, as the best sequence. Used as an introduction to the topic of radiation in the other three choices, Sentence Two works well. In these choices, Sentences Four and Three are the possibilities for the second sentence in the sequence. Sentence Four makes some sense following Sentence Two, although it is a very quick jump to that conclusion. But Sentence Three suggests the idea of "doses" and cumulative effects, and offers a better transition to Sentence One with its examples and Sentence Four's conclusion. Only in Choice D is Sentence Three next in the sequence.
- 11. The answer is D. Choice A is incorrect because, basically, the sentences make little sense in that order. In our field testing, people who chose this answer chose it because it "looked good," and also because they often didn't feel like taking more time with the boring passage, which is understandable. But there are clues that could help solve this more quickly. Sentence Five, in particular, makes sense as the last sentence in the passage. The expression "provided a more direct means" in the first sentence is also a clue that something may be wrong with this choice, as nothing has been mentioned as a comparison. Choice B is incorrect not only because the transition between Sentence Five and Sentence Three is awkward, but also because of

the phrase "this assumption of women's inferiority." This suggests there may be a better order, something which would include sentence with that sentiment, before Sentence Five is used. Choice C is incorrect, not only for the reason just mentioned for Sentence Five not being a good opening sentence, but also because Sentence Three is left dangling, with no transition between it and the sentence before it. The same is true of Sentence Four. Choice D is correct because it not only is the best of the four choices, it flows and makes sense. This is a difficult question for many people, mainly because they find it hard to concentrate, under pressure, on a boring passage that requires them to scramble and unscramble sentences that are on an unfamiliar or possibly intimidating subject. It may be necessary, in a problem like this, to break the problem down into parts that are more easily understood and to try and visualize each sentence, asking "what is this sentence really saying?" With practice, questions like this became easier. We suggest you do this question again in a few weeks, with these thoughts in mind, and see how you do.

- 12. The answer is C. Choice A is incorrect because the order presented makes little sense. The transition between Sentence Five and Sentence One is poor, as is the transition between Sentences One and Two. In addition the use of the word "then" in Sentence Three suggests that the sentence is concluding a thought. The reference to "these critically located atoms of zinc" is also suspect here. These would be odd in an opening sentence. Choice B is incorrect because the order makes little sense, and transitions between the first three sentences are very poor. The events are not arranged chronologically, and again Sentence Three's reference to "these critically located atoms of zinc" is a major clue, as this is the first reference to zinc. While Choice D contains as poor a sequence of events as Choice B, Choice D is also incorrect for a number of reasons. Like A and B, D has Sentence Three introduce "these critically located atoms of zinc" with no prior mention of zinc. (Important Note: If all the choices had this happen, then it would no longer be a factor, and you would have to find other reasons to eliminate possible answers. In this case, Choice C does have a previous reference to zinc, so this would not apply.) Also, the transition between sentences is poor. Sentence Five interrupts the sequence of events that describes the chemical processing occurring. Choice C makes sense chronologically, and has smooth transitions. In field testing, many people found it helpful to draw a little diagram to enable them to see what was taking place. "Active problem solving," by any means that feels comfortable, could help, in this case, trace the activity of the zinc and the carbon dioxide.
- 13. The answer is C. Choice A is incorrect, not only because the order makes little sense and transitions are poor, but also because of Sentence Two. Sentence Two has references to "this tendency," and "wondering the same things," neither of which is warranted by anything mentioned in the sentence before it. Choice B doesn't have the glaring errors of Choice A, but the transition between Sentences Five and Two isn't a good one. It would seem to make more sense to have Sentence Two before Sentence Five, as it clarifies it. Sentence Three seems out of place at the end, as the "it" (approval) it is referring to is contained in Sentence Five, not in Sentence Two. So B doesn't seem like a great choice. Sometimes in these exams, however, we have to choose which is the best of the "not great" choices, so it's best not to totally rule out Choice

B unless we can find something better. Choice C flows and makes sense, but we should check Choice D also. Choice D seems fine, until we get to the last sentence. Sentence Three is obviously out of place as the last sentence, as it doesn't follow Sentence One well at all. It makes much more sense after Sentence Five, as in the correct choice, C.

- 14. The answer is B. A less painful way to tell that choice A is incorrect is by noting that "this process" mentioned in Sentence One is not mentioned anywhere in the sentence before it. The "process" is actually not referred to until Sentence Four, so, unless all the other choices have this same mistake, Choice A can be eliminated. Choice C may "look good" at first, but its transitions, particularly between Sentences Four and Two, Sentences Two and One, and Sentences One and Five, are not very good or clear. Compared with Choice B, C is less clear and doesn't "flow" the way B does. Choice D can be eliminated immediately, as its beginning sentence has references to "this energy's transformation," and there is no earlier reference to the energy, as Sentence Three is the first sentence in this sequence. Choice B is the clearest of the four, and the fact that Sentence One directly follows Sentence Four, with its specific mention of the "process" referred to directly in Sentence Four, is also a clue. This is a difficult question, and we recommend trying it again in a week or so.
- 15. The correct answer is C. Choice A is incorrect mainly because Sentences Three and Four are out of order, and should be reversed, otherwise the conclusion reached in Sentence Three is totally unsupported. Choice B is incorrect mainly because Sentence Three appears out of order. There is also a poor transition from Sentence Three to Sentence Four. Choice B is incorrect also because of poor transitions between Sentences Two and Three, and Sentences Three and Four. We shouldn't eliminate it, however, until we find a better choice. Choice C has no poor transitions, and flows well. Choice D is incorrect mainly because Sentence Four is so obviously out of place in this passage, as it would serve the argument much better and more smoothly if it had been placed earlier in the passage. Choice C is the answer because, while it may not have been our preferred way of arranging the sentences, it was the best of the four choices given.

You shouldn't feel badly if you missed a few of the last five questions in this section. Most of the sentence scrambling is not this difficult. Should you get one or two at this level of difficulty, and you find yourself having a lot of trouble with it, you may want to skip it and come back to it later, when you can gain a fresh perspective. In these cases, it often comes down to choosing between two possible answers, neither of which you're crazy about. By practicing with these questions, being careful to avoid careless mistakes, persevering, and breaking complex problems down into parts, you should increase your chances of making the correct choice. If review sessions are held, after the exam, you should be sure to attend, not

only to find out what the correct answers were, but also to give yourself the opportunity to contest any answer you disagree with.

2. Paragraph and Sentence Recognition

- 16. The answer is C. Choice A is incorrect because the thoughts contained in the second sentence are omitted. Choice B would seem like an excellent choice, except that the phrase "found primarily in women" is included. While we may believe that's the case, it is stated nowhere in the four sentences. Choice D would be a good choice, except for the incorrect word usage found in the first sentence. The word "which," used the way it's used, is out of place and makes a non-sentence out of a perfectly good sentence. Many people miss this because they read the passage too quickly. Choice C is the best of the four choices, as it includes all of the necessary ideas, and has no major flaws.
- 17. The answer is C. Although paragraph (A) retains the tone of the original information, it leaves out the "unconscious and unintentional" nature of the "body language" as well as the fact that people react to how something is said. Paragraph (B) includes all the information, but it changes the tone by adding "you" or an informal audience. Paragraph (C) both contains all the information and retains the tone. While paragraph (D) also retains the tone, it also omits the information that "body language" is "unconscious and unintentional."
- 18. The answer is A. Choice (B) distorts the information by saying that "Secretaries are the invisible presence at board meetings" and adds that the bosses are "unfeeling" which is a judgement on the original information. Choice (C) also uses the information about "invisibility" incorrectly and editorializes, terming secretaries the "unacknowledged champions of the small office." Thus, it changes the topic from "secretaries feeling invisible" to "secretaries are great." Choice (D) obviously omits several points of information and also states conclusions that are implied but not explicitly given. Choice (A) uses all the information without adding more facts or slanting the information.
- 19. The answer is B. Choice (A) is incorrect because it is a simplification of the ideas expressed in Sentences Two and Three. It is also not clear what the reference to "oil" in this paragraph means. Choice (C) looks good, but contains incorrect word usage, "much consequences at first." It should read, "much of the consequence." Many people miss this because of carelessness. Choice (D) is incorrect because it takes too many liberties, using flowery language and changing the tone of the sentences. Choice (B) is correct because it retains the tone and information of the four sentences.
- 20. Choice (A) states that Emma Willard was "the most significant figure in the nineteenth century movement for women's education" and the Troy Female Seminary was the first school for girls, but according to the original information, Emma Willard was "an important leader" and her school as "one of the first schools for girls." Choice (B) includes all the information without

- exaggeration. Choice (C) states that Willard's efforts were "voluntary" and omits the information that her network was of "schools and voluntary associations." Choice (D) adds the fact that "she dies in 1870."
- 21. The answer is A. Although it may look good, Choice (B) is incorrect, primarily because the concept of "inconsistence" mentioned in the fourth sentence is omitted as is the thought about "inhibiting the creative process." These are important points, and are not mentioned in B. Also, the second sentence is not particularly clear or well constructed. Choice (C) is incorrect because it is too vague, assumes too much and leaves out the major points of Sentence Four. Choice (D) looks good, but is not specific enough. It's reference to "losing sight of the problem" does not adequately describe the important concept of "inconsistency" mentioned in Sentence Four. The idea that "you cannot do you best on a problem unless you are motivated" is also omitted. This is one of those questions where we may not have liked any of the choices (none of them, for example, specifically mentions the importance of conceptualizing referred to in Sentence Four), but were forced to choose anyway. Of the four, A is the best, because it omits less than any of the others.
- 22. The answer is C. Choice (A) is incorrect mainly because of the use of the word "received" in the second sentence. It's in the wrong tense, and should be "receive." Choice (A) also does not flow as well as Choice (C). Choice (B) is incorrect because it does not include enough of the specific information mentioned in the four sentences. The same is true of Choice (D). Choice (C) gives a good representation of the ideas contained in the four sentences, and is the best choice.
- 23. Choice (A) leaves out the information about training and equipment available through cable television companies. Also, the tone is altered slightly with the phrase "so there is no reason for any group to be without." Choice (B) leaves out the information about books available and changes the tone considerably by saying organizations "should" rather than "could" use videotaping which is called "vitally important" rather than "viable." Choice (C) contains all the information and retains the tone. Choice (D) contains all the information but calls videotaping a "public relations tool" which is a more specific use than what is suggested in the given sentence.
- 24. Choice (A) includes all the information but changes the meaning by substituting "not be consciously attracted" for "distracted." Choice (B) contains all the information without changes in meaning or tone. Choice (C) leaves out information and changes the meaning entirely. Choice (D) includes all the information but adds that "readers will complain" which is not implied by the given sentences.
- 25. Choice (A) contains all the information without additions or changes in tone and meaning. Choice (B) omits the information about catnip as a possible tranquilizer or aphrodisiac. Choice (C) incorrectly states the possibility of catnip as a tranquilizer or aphrodisiac as a fact, and the information about "lions and other big cats" is added. Choice (D) includes all the information without additions, but the last sentence is grammatically incorrect and, therefore, changes the

meaning. As written, the participle phrase beginning "regarded" refers to the subject "cats" rather than "catnip" as intended.

II. UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL

A. OVERVIEW: UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL

The ability to do well on this section of a promotional examination is critical, yet many people often lose a lot of points unnecessarily here. Carelessness, faulty reasoning, lack of persistence and lack of confidence are the major reasons these questions are not answered correctly.

As you answer the following questions, we suggest that you do them in groups of five. After you do five of the problems, check the answer key. Then go back to any problems you may have gotten wrong, and try to determine why your answer was incorrect. If you don't understand why your choice isn't the correct answer, consult the Explanation of Answers, a friend or instructor. After you've done this, we suggest you use the Problem Solving Diagnostic Worksheet to determine what led to your error. Use of this worksheet will give you insight into the areas of problem solving you may need to work on.

If you follow the above procedure, you should find that you will become more careful in your reading of the problems, more persistent, and less inclined to hurry through the passages and just settle for what "looks good." We suggest that you redo all thirty questions at least once before the examination. (If you've answered all of the questions correctly the first time, which happens rarely, there is, of course, no need to redo them.)

Many people are most nervous at the beginning of examinations, and tend to race through this section, if not the whole test, in a daze. Another problem that can occur is boredom, as the reading passages are often not very interesting. They are intentionally designed that way, to wear you down. If you practice with the following questions, and take a few short rest breaks during the exam, you'll be better able to overcome fatigue, anxiety, and boredom, and less inclined to race through the examination.

Good Luck!

UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL B. PRACTICE PROBLEMS:

For each of the following questions, select the letter that represents the best of the four possible answers.

1. A study conducted by a large firm specializing in deluxe stereo equipment found that male sales people spent, on the average, 25 minutes with male customers, while female sales people spent an average of 30 minutes with female customers. Male sales people lengthened their transactions, however, when dealing with female customers to an average of 32 minutes. When female sales people dealt with male customers, their transaction time was 22 minutes.

The study shows:

- a. You are most likely to receive faster service from a stereo sales person of the opposite sex.
- b. You are most likely to receive faster service from a stereo sales person of the same sex.
- c. For faster service you should choose female stereo sales people
- d. Male sales people put more effort into doing their job well when serving female customers.
- 2. In thinking about the many barriers to personal communication, particularly those that are due to differences of background, experience, and motivation, it seems to me extraordinary that any two persons can ever understand each other. Such reflections provoke the question of how communication is possible when people do not see and assume the same things and are the same values. On this question there are two schools of thought. One school assumes that communication between A and B, for example, has failed when B does not accept what A has to say as being fact, true, or valid; and that the goal of communication is to get B to agree with A's opinions, ideas, facts, or information. The position of the other school of thought is quite different. It assumes that communication has failed when B does not feel free to express his feelings to A because B fears they will not be accepted by A. Communication is facilitated when on the part of A or B or both there is willingness to express and accept differences.

According to the author:

- a. Communication is not possible when people do not assume the same things or share the same values.
- b. Communication is facilitated when there is a willingness to express and accept differences.
- c. There are many barriers to personal communication.
- d. Communication is possible only when differences of background, experience and motivation are overcome.

3. We have human psychology and animal psychology, but no plant psychology. Why? Because we believe that plants have no perceptions or intentions. Some plants exhibit "behavior," and have been credited with "habits." If you stroke the midrib of the compound leaf of a sensitive plant, the leaflets close. The sunflower changes with the diurnal changes in the source of light. The lowest animals have not much more complicated forms of behavior. The sea anemone traps and digests the small creatures that the water brings to it; the pitcher plant does the same thing and even more, for it presents a cup of liquid that attracts insects, instead of letting the surrounding medium drift them into its trap. Here, as everywhere in nature where the great, general classes of living things diverge, the lines between them are not perfectly clear. A sponge is an animal; the pitcher plant is a flowering plant, but it comes nearer to "feeding itself" than the animal. Yet the fact is that we credit all animals and only the animals, with some degree of feeling.

Of the following, the main idea expressed in the above paragraph is:

- a. The classification of plants has been based on beliefs about their capacity to perceive and feel.
- b. Many plants are more evolved than species considered animals.
- c. The lines that divide the classes of living things are never clear.
- d. The abilities and qualities of plants are undervalued.
- 4. Quantitative indexes are not necessarily adequate measures of true economic significance or influence. But even the raw quantitative data speak loudly of the importance of the new transnationalized economy. The United Nations estimates value added to this new sector of the world economy at \$500 billion in 1971, amounting to one-fifth of total GNP of the non-socialist world and exceeding the GNP of any one other country except the United States. Furthermore, all observers agree that the share of this sector in the world economy is growing rapidly. At least since 1950 its annual rate of growth has been high and remarkably steady at 10 percent compared to 4 percent for noninternationalized output in the Western developed countries. One spokesman for the new system frankly envisions that within a generation some 400 to 500 multinational corporations will own close to two-thirds of the world's fixed assets.

According to the author, all of the following are true, except:

- a. Quantitative indexes are not necessarily adequate measures of actual economic influence.
- b. The transnational sector of the world economy is growing rapidly.
- c. Since 1950 the rate of growth of transnationals have been 10% compared to 4% for internationalized output in the Western developed countries.
- d. Continued growth for multinational corporations is likely.
- 5. A bill may be sent to the Governor when it has passed both houses. During the session he is given ten days to act on bills that reach his desk. Bills sent to him within ten days of the end of the session

must be acted on within 30 days after the last day of the session. If the Governor takes no action on a ten day bill, it automatically become a law. If he disapproves or vetoes a ten day bill, it can become law only if it is re-passed by two-thirds vote in each house. If he fails to act on a 30 day bill, the bill is said to have received a "pocket veto." It is customary for the Governor to act, however, on all bills submitted to him, and give his reason in writing for approving or disapproving important legislation.

According to the above paragraph, all of the following are true, except:

- a. Bills sent to the governor in the last ten days of the session must be acted on within thirty days after the last day of the session.
- b. If the Governor takes no action on a 10 day bill, it is said to have received a "pocket veto."
- c. It is customary for the Governor to act on all bills submitted to him.
- d. If the Governor vetoes a ten day bill, it can become law only if passed by a two-thirds vote of the Legislature.
- 6. It is particularly when I see a child going through the mechanical process of manipulating numbers without any intuitive sense of what it is all about that I recall the lines of Lewis Carroll: "Reeling and Writhing, of course, to begin with... and then the different branches of Arithmetic-Ambition, Distracting, Uglification and Derision." Or as Max Beberman has put it, much more gently, "Somewhat related to the notion of discovery in teaching is our insistence that the student become aware of a concept before a name has been assigned to the concept." I am quite aware that the issue of intuitive understanding is a very live one among teachers of mathematics, and even a casual reading of the YEARBOOK of the National Council of Teachers of Mathematics makes it clear that they are also very mindful of the gap that exists between proclaiming the importance of such understanding and actually producing it in the classroom.

The main idea expressed in the above passage is:

- Math teachers are concerned about the difficulties inherent in producing an understanding of mathematics in their students.
- b. It is important that an intuitive sense in approaching math problems be developed, rather than relying on rote, mechanical learning.
- c. Mathematics, by its very nature, encourages rote, mechanical learning.
- d. Lewis Carroll was absolutely correct in his assessment of the true nature of mathematics.
- 7. Heisenberg's Principle of Uncertainty, which states that events at the atomic level cannot be observed with certainty, can be compared to this: in the world of everyday experience we can observe any phenomenon and measure its properties without influencing the phenomenon in question to any significant extent. To be sure, if we try to measure the temperature of a demitasse with a bathtub thermometer, the instrument will absorb so much heat from the coffee that it will

change the coffee's temperature substantially. But with a small chemical thermometer we may get a sufficiently accurate reading. We can measure the temperature of a living cell with a miniature thermometer, which has almost negligible heat capacity.

But in the atomic world we can never overlook the disturbance caused by the introduction of the measuring apparatus.

Which sentence is best supported by the above paragraph?

- a. There is little we do not alter by the mere act of observation.
- b. It is always a good idea to use the smallest measuring device possible.
- c. Chemical thermometers are more accurate than bathtub thermometers.
- d. It is not possible to observe events at the atomic level and be sure that the same events would occur if we were not observing them.
- 8. Workers who want to move in the direction of participative structures will need to confront the issues of power and control. The process of change needs to be mutually shared by all involved, or the outcome will not be a really participative model. The demand for a structural redistribution of power is not sufficient to address the problem of change toward a humanistic, as against a technological, workplace. If we are to change our institutional arrangements from hierarchy to participation, particularly in our workplaces, we will need to look to transformations in ourselves as well. As long as we are imbued with the legitimacy of hierarchical authority, with the sovereignty of the status quo, we will never be able to generate the new and original participative forms that we seek. This means if we are to be equal to the task of reorganizing our workplaces, we need to think about how we can reeducate ourselves and become aware of our own assumptions about the nature of our social life together. Unless the issue is approached in terms of these complexities, I fear that all the worker participation and quality of work life efforts will fail.

According to the above paragraph, which of the following is not true?

- a. Self-education concerning social roles must go hand in hand with workplace reorganization.
- b. The structural changing of the workplace, along, will not bring about the necessary changes in the quality of work life.
- c. Individuals can easily overcome their attitudes towards hierarchical authority.
- d. Changing the quality of work life will require the participation of all involved.
- 9. The concentration of women and female-headed families in the city is both cause and consequence of the city's fiscal woes. Women live in cities because it is easier and cheaper for them to do so, but because fewer women are employed, and those that are, receive lower pay than men, they do not make the same contribution to the tax base that an equivalent population of men would. Concomitantly, they are more dependent on public resources, such as transportation and housing.

For these reasons alone urban finances would be improved by increasing women's employment opportunities and pay. Yet nothing in our current urban policy is specifically geared to improving women's financial resources. There are some proposed incentives to business to create more jobs, but not necessarily ones that would utilize the skills women currently have. The most innovative proposal was a tax credit for new hires from certain groups with particularly high unemployment rates. None of the seven targeted groups were women.

Which sentence is best supported by the above paragraph?

- a. Innovative programs are rapidly improving conditions for seven targeted groups with traditioning high unemployment rates.
- b. The contribution of women to a city's tax base reflects their superior economic position.
- c. Improving the economic position of women who live in cities would help the financial conditions of the cities themselves.
- d. Most women in this country live in large cities.
- 10. In naming intervals that are wider than the octave, musicians follow two practices; the first is simply that of starting all over again; thus the two tones C-D, which frame nine tones: C-D-E-F-G-A-B-C-D may be called a second; or, one may simply count the full number of tones and call it a ninth. Both terms are used interchangeably. If the two tones C-D are sounded simultaneously, they are commonly called a second, in that the second and ninth are identical from the point of view of harmony; if they are sounded in succession, they are then called a ninth, inasmuch as there is a great difference in a melody between a second and the leap of a ninth.

According to the above passage, if the two tones C-D are sounded in succession:

- a. The result is called an octave.
- b. The result is called a second.
- c. The result is part of a "minor third."
- d. The result is called a ninth.
- 11. A young person's first manager is likely to be the most influential person in his or her career. If this manager is unable or unwilling to develop the skills the young employee needs to perform effectively, the latter will set lower personal standards than he or she is capable of achieving, that person's self-image will be impaired, and he or she will develop negative attitudes toward the job, the employer, and-in all probability-his or her career. Since the chances of building a successful career with the employer will decline rapidly, he or she will leave, if that person has high aspirations, in hope of finding a better opportunity. If, on the other hand, the manager helps the employee to achieve maximum potential, he or she will build a foundation for a successful career.

According to the above passage:

- a. If an employee has negative attitudes towards his or her job, the manager is to blame.
- b. Managers of young people often have a great influence upon their careers.
- c. Good employees will leave a job they like if they are not given a chance to develop their skills.
- d. Managers should develop the full potential of their young employees.
- 12. The reason for these differences is not that the Greeks had a superior sense of form, or an inferior imagination or joy in life, but that they thought differently. Perhaps an illustration will make this clear. With the historical plays of Shakespeare in mind, let the reader contemplate the only extant Greek play on a historical subject, the Persians of Aeschylus, a play written less than ten years after the event which it deals with, and performed before the Athenian people who had played so notable a part in the struggle-incidentally, immediately below the Acropolis which the Persians had sacked and defiled. Any Elizabethan dramatist would have given us a panorama of the whole war, its moments of despair, hope and triumph; we should see on the stage the leaders who planned and some of the soldiers who won the victory. In the Persians we see nothing of the sort. The scene is laid in the Persian capital, one action is seen only through Persian eyes, the course of the war is simplified so much that the naval battle of Artemisium is not mentioned, nor even the heroic defense of Thermopylae, and not a single Greek is mentioned by name. The contrast could hardly be more complete.

Which sentence is best supported by the above paragraph?

- a. Greek plays are more interesting that Elizabethan plays.
- b. Elizabethan dramatists were more talented than Greek Dramatists.
- c. If early Greek dramatists had the same historical material as Shakespeare had, the final form the Greek work would take would be very difficult from the Elizabethan work.
- d. Greeks were historically more inaccurate than Elizabethans.
- 13. The problem with present planning systems, public or private, is that accountability is weak. Private planning systems in the global corporations operate on a set of narrow incentives that frustrate sensible public policies such as full employment, environmental protection, and price stability. Public planning is Olympian and confused because there is neither a clear consensus on social values nor political priorities. To accomplish anything, explicit choices must be made, but these choices can be made effectively only with the active participation of the people most directly involved. This, not nostalgia for small-town times gone forever, is the reason that devolution of political power in local communities is a political necessity. The power to plan locally is a precondition for sensible integration of cities, regions, and countries into the world economy.
 - a. People most directly affected by issues should participate in deciding those issues.
 - b. Private planning systems are preferable to public planning systems.
 - c. There is no good system of government.

- d. County governments are more effective than state governments.
- 14. The universe is 15 billion years old, and the geological underpinnings of the earth were formed long before the sea creature slithered out of the slime. But is only in the last 6,000 years or so that men have descended into mines to chop and scratch at the earth's crust. Human history is, as Carl Sagan has put it, the equivalent of a few seconds in the 15 billion year life of the earth. What alarms those who keep track of the earth's crust is that since 1950 human beings have managed to consume more minerals than were mined in all previous history, a splurge of a millisecond in geologic time that cannot be long repeated without using up the finite riches of the earth.

Of the following, the main idea of this paragraph is:

- a. There is true cause for concern at the escalating consumption of the earth's minerals in recent years.
- b. Human history is the equivalent of a few seconds in the 15 billion year life of the earth.
- c. The earth will soon run out of vital mineral resources.
- d. The extraction of minerals from the earth's crust only began 6,000 years ago.
- 15. The authors of the Economic Report of the President are collectively aware, despite their vision of the asset-rich household, of the real economy in which millions of Americans live. There are glimpses, throughout the Report of the underworld in which "about 23 million people" do not have public or private health insurance; in which "the number of people receiving unemployment compensation was 41 percent of the total unemployed," in which the average dole for the compensated unemployed "is about one half of take-home pay." The authors understand, for example, that "a worker may become physically disabled" and that "individuals generally do not like the risk of losing their ability to earn income."

But such realities justify no more than the most limited interference in the (imperfect) market for disability insurance. There is only, as far as I can tell, one moment of genuine emotion in the entire Report, when the authors' passions are stirred beyond market principles. They are discussing the leasing provisions of the 1981 Tax Act (conditions which so reduce tax revenues that they are apparently opposed in their present form by the Business Roundtable, the American Business Conference, and the National Association of Manufacturers).

In the dark days before the 1981 Act, according to the Report, "firms with temporary tax losses (a condition especially characteristic of new enterprises) were often unable to take advantage of investment tax incentives. The reason was that temporarily unprofitable companies had no taxable income against which to apply the investment tax deduction..." It was a piteous contingency for the truly needy entrepreneur. But all was made right with the Tax Act. Social security for the disabled incompetent corporation: the compassionate soul of Reagon's new economy.

According to the above passage:

- a. The National Association of Manufacturers and those companies that are temporarily unprofitable oppose the leasing provisions of the 1981 Tax Act.
- b. The authors of the Report are willing to ignore market principles in order to assist corporations unable to take advantage of tax incentives.
- c. The authors of the Report feel the National Association of Manufacturers and the Business Roundtable are wrong in opposing the leasing provisions of the 1981 Tax Act.
- d. The authors of the Report have more compassion for incompetent corporations than for disabled workers.
- 16. Much of the lore of management in the West regards ambiguity as a symptom of a variety of organizational ills whose cure is larger doses of rationality, specificity, and decisiveness. But is ambiguity sometimes desirable?

Ambiguity may be thought of as a shroud of the unknown surrounding certain events. The Japanese have a word for it, ma, for which there is no English translation. The word is valuable because it gives an explicit place to the unknowable aspect of things. In English we may refer to an empty space between the chair and the table; the Japanese don't say the space is empty but "full of nothing." However, amusing the illustration, it goes to the core of the issue. Westerners speak of what is unknown primarily in reference to what is known (like the space between the chair and the table), while most Eastern languages give honor to the unknown in its own right.

Of course, there are many situations that a manager finds himself in where being explicit and decisive is not only helpful but necessary. There is considerable advantage, however, in having a dual frame of reference-recognizing the value of both the clear and the ambiguous. The point to bear in mind is that in certain situations ambiguity may serve better than absolute clarity.

Which sentence is best supported by the above passage?

- a. We should cultivate the art of being ambiguous.
- b. Ambiguity may sometimes be an effective managerial tool.
- c. Westerners do not have a dual frame of reference.
- d. It's important to recognize the ambiguous aspects of all situations.
- 17. Everyone ought to accustom himself to grasp in his thought at the same time facts that are once so few and so simple, that he shall never believe that he has knowledge of anything which he does not mentally behold with a distinctness equal to that of the objects which he knows most distinctly of all. It is true that some people are born with a much greater aptitude for such discernment than others, but the mind can be made much more expert at such work by art and exercise. But there is one fact which I should emphasize above all others; and

that is everyone should firmly persuade themselves that none of the sciences, however abstruse, is to be deduced from lofty and obscure matters, but that they all proceed only from what is easy and more readily understood.

- Descartes, "Rules for the Direction of the Mind"

According to the author:

- a. People should concentrate primarily on simple facts.
- b. Intellectually gifted people have a great advantage over others.
- c. Even difficult material and theories proceed from what is readily understood.
- d. If a scientist cannot grasp a simple theory, he or she is destined to fail.
- 18. Goethe's casual observations about language contain a profound truth. Every word in every language is a part of a system of thinking unlike any other. Speakers of different languages live in different worlds; or rather, they live in the same world but can't help looking at it in different ways. Words stand for patterns of experience. As one generation hands its language down to the next, it also hands down a fixed pattern of thinking, seeing and feeling. When we go from one language to another, nothing stays put; different people carry different nerve patterns in their brains, and there's no point where they fully match.

According to the above passage:

- a. Language differences and their ramifications are a major cause of tensions between nations.
- b. It is not a good use of one's time to read novels that have been translated from another language, because of the tremendous differences in interpretation.
- c. Differences in languages reflect the different experiences of people the world over.
- d. Language students should be especially careful to retain awareness of the subtleties of their native language.
- 19. Most managers make the mistake of using "absolutes" as signals of trouble-or its absence. A quality problem emerges that means trouble; a test is passed we have no problems. Outside of routine organizations, there are always going to be such signals of trouble or success, but they are not very meaningful. Many times everything looks good, but the roof is about to cave in because something no one thought about and for which there is no rule, procedure, or test has been neglected. The specifics of such problems cannot be predicted, but they are often signaled in advance by changes in the organizational system: Managers spend less time on the project; minor problems proliferate; friction in the relationships between adjacent work groups or departments increases; verbal progress reports become overly glib-or overly reticent; changes occur in the rate at which certain events happen, not in whether or not they happen. And they are monitored by random probers into the organization-seeing how things are going.

According to the above paragraph:

- a. Managers do not spend enough time managing.
- b. Managers have a tendency to become overly glib when writing reports.
- c. Managers should be aware that problems that exist in the organization may not exhibit predictable signals of trouble.
- d. Managers should attempt to alleviate friction in the relationship between adjacent work groups by monitoring random probes into the organization's problems.
- 20. "Lack of challenge" and "excessive zeal" are opposite villains. You cannot do your best on a problem unless you are motivated. Professional problem solvers learn to be motivated somewhat by money and future work that may come their way if they succeed. However, challenge must be present for at least some of the time, or the process ceases to be rewarding. On the other hand, an excessive motivation to succeed, especially to succeed quickly, can inhibit the creative process. The tortoise-and-the-hare phenomenon is often apparent in problem solving. The person who thinks up the simple elegant solution, although he or she may take longer in doing so, often wins. As in the race, the tortoise depends upon an inconsistent performance from the rabbit. And if the rabbit spends so little time on conceptualization that the rabbit merely chooses the first answers that occur, such inconsistency is almost guaranteed.

According the above paragraph:

- a. Excessive motivation to succeed can be harmful in problem solving.
- b. It is best to spend a long time on solving problems.
- c. Motivation is the most important component in problem solving.
- d. Choosing the first solution that occurs is a valid method of problem solving.
- 21. Virginia Woolf's approach to the question of women and fiction, about which she wrote extensively, polemically, and in a profoundly feminist way, was grounded in a general theory of literature. She argued that the writer was the product of her or his historical circumstances, and that material conditions were of crucial importance. Secondly, she claimed that these material circumstances had a profound effect on the psychological aspects of writing, and that they could be seen to influence the nature of the creative work itself.

According to this passage:

- a. The material conditions and historical circumstances in which male and female writers find themselves greatly influence their work.
- b. A woman must have an independent income to succeed as a writer.
- c. Virginia Woolf preferred the writings of female authors, as their experiences more clearly reflected hers.
- d. Male writers are less likely than women writers to be influenced by material circumstances.

22. The question, "Who shall now teach Hegel?" is shorthand for the question, "Who is going to teach this genre-all the so-called Continental philosophers?" The obvious answer to this question is, "Whoever cares to study them." This is also the right answer, but we can only accept it wholeheartedly if we clear away a set of factitious questions. One such question is, "Are these Continental philosophers really philosophers?" Analytic philosophers, because they identify philosophical ability with argumentative skill and notice that there is nothing they would consider an argument in the bulk of Heidegger or Foucault, suggest that these must be people who tried to be philosophers and failed-incompetent philosophers. This is as silly as saying that Plato was an incompetent sophist, or that a hedgehog is an incompetent fox. Hegel knew what he thought about philosophers who imitated the method and style of mathematics. He thought they were incompetent. These reciprocal changes of incompetence do nobody any good. We should just drop the questions of what philosophy really is or who really counts as a philosopher.

Which sentence is best supported by the above paragraph?

- a. The study of Hegel's philosophy is less popular now than in the past.
- b. Philosophers must stop questioning the competence of other philosophers.
- c. Philosophers should try to be as tolerant as Foucault and Heidegger.
- d. Analytic philosophers tend to be more argumentative than philosophers.
- 23. It is an interesting question: the ease with which organizations of different kinds of different stages in their history can continue to function with ineffectual leadership at the top, or even function without a clear system of authority. Certainly, the success of some experiments in worker self-management shows that "bosses" are not always necessary, as some contemporary Marxists argue. Indeed, sometimes the function of those at the top is merely to symbolize organizational accountability, especially in dealing with outside authorities, but not to guide the actions of those within the organization. A vice president of a large insurance company remarked to us that "Presidents are powerless; no one needs them. They should all be sent off to do public relations for the company." While this is clearly a self-serving statement from someone next in line to command, it does give meaning to the expression "being kicked upstairs."

According to the author:

- a. Organizations function very smoothly without bosses.
- b. The function of those at the top is sometimes only to symbolize organizational accountability.
- c. Company presidents are often inept at guiding the actions of those within the organization.
- d. Presidents of companies have less power than one might assume they have.
- 24. The goal of a problem is a terminal expression one wishes to cause to exist in the world of the problem. There are two types of goals: specified goal expressions in proof problems and

incompletely specified goal expressions in proof problems and incompletely specified goal expression in finding problems. For example, consider the problem of finding the value of X, given the expression $4 \times +5 = 17$. In this problem, one can regard the goal expression as being of the form X = ---, the goal expression. The goal expression in a find problem of this type is incompletely specified. If the goal expression were specified completely - for example, X=3 - then the problem would be a proof problem, with only the sequence of operations to be determined in order to solve the problem. Of course, if one were not guaranteed that the goal expression X=3 was true, then the terminal goal expression should really be considered to be incompletely specified - something like the statement "X=3 is (true or false)."

According to the preceding paragraph:

- a. The goal of the equation 4x + 5 = 17 is true, not false.
- b. If the goal expression was specified as being equal to 3, the problem $4 \times 4 = 17$ would be a proof problem.
- c. If the sequence of operations of the problem given in the paragraph is pre-determined, the goal of the problem becomes one of terminal expression, or the number 17.
- d. The wages of American workers in manufacturing increased at a slower rate in the 1970's than the wages of workers in Japan or Germany.
- 25. It is a myth that American workers are pricing themselves out of the market, relative to workers in other industrialized countries of the world. The wages of American manufacturing workers increased at a slower rate in the 1970's than those of workers in other major western countries. In terms of American dollars, between 1970 and 1980 hourly compensation increased 489 percent in Japan and 464 percent in Germany, compared to 128 percent in the United States. Even though these countries experienced faster productivity growth, their unit labor costs still rose faster than in the United States, according to the Bureau of Labor Statistics. During the 1970's unit labor costs rose 192 percent in Japan, 252 percent in Germany, and only 78 percent in the United States.

According to the above passage:

- 1. Unit labor costs in the 1970's were higher in Japan than they were in Germany or the United States.
- 2. The wages of American workers need to be increased to be consistent with other countries.
- 3. American workers are more productive than Japanese or German workers.
- 4. The wages of American workers in manufacturing increased at a slower rate in the 1970's than the wages of workers in Japan or Germany.
- 26. No people have invented more ways to enjoy life than have the Chinese, perhaps to balance floods, famines, warlords, and other ills of fate. The clang of gongs, clashing cymbals, and beating of drums sound through their long history. No month is without fairs and theatricals when streets are hung

with fantasies of painted lanterns and crowded with "carriages that flow like water, and horses like roaming dragons." Night skies are illumined by firecrackers - a Chinese invention - bursting in the form of flowerpots, peonies, fiery devils. The ways of pleasure are myriad. Music plays in the air through bamboo whistles of different pitch tied to the wings of circling pigeons. To skim a frozen lake in an ice sleigh with a group of friends on a day when the sun is warm is rapture, like "moving in a cup of jade." What more delightful than the ancient festival called "Half an Immortal," when everyone from palace officials to the common man took a ride on a swing? When high in the air, one felt like an Immortal, when back to earth once again human - nor more than to be for an instant a god.

According to the above passage:

- a. If the Chinese hadn't had so many misfortunes, they wouldn't have created so many pleasurable pastimes.
- b. The Chinese invented flowerpots.
- c. Every month the Chinese have fairs and theatricals.
- d. Pigeons are required to play the game "Half an Immortal."
- 27. In our century, instead, poor Diphilus is lost in the crowd of his peers. We flood one another. No one recognizes him as he loads his basket in the supermarket. What grievous fits of melancholy have I not suffered in one of our larger urban bookstores, gazing at the hundreds, thousands, tens of thousands of books on shelves and tables? And what are they to the hundreds of thousands, the millions that stand in our research libraries? More books than Noah saw raindrops. How many readers will read a given one of them-mine, yours-in their lifetimes? And how will it be in the distant future? Incomprehensible masses of books, Pelion upon Ossa, hordes of books, each piteously calling for attention, respect, love, in competition with the vast disgorgement of the past and with one another in the present. Neither is it at all helpful that books can even now be reduced to the size of a postage stamp. Avanti! Place the Bible on a pinhead! Crowding more books into small spaces does not cram more books into our heads.

Here I come to the sticking point that unnerves the modern Diphilus. The number of books a person can read in a given time is, roughly speaking, a historical constant. It does not change significantly even when the number of books available for reading does. Constants are pitted against variables to confound both writer and reader.

Of the following, the main idea in this passage is:

- a. It is difficult to attain immortality because so many books are being published.
- b. Too many books are being published, so fewer people are reading them.
- c. Because so many books are being published, the quality of the writing is poorer.
- d. Because so many books are available, but only a fixed amount of time to read them, frustration

results for both the reader and the writer.

28. Until recently, consciousness of sexual harassment has been low. But workers have become aware of it as more women have arrived at levels of authority in the workplace. Feminist groups have focused attention on rape and other violence against women, and students have felt freer to report perceived abuse by professors. In the last 5 years, studies have shown that sexual misconduct at the workplace is a big problem. For example, in a recently published survey of federal employees, 42% of 694,000 women and 15% of 1,168,000 men said they had experienced some form of harassment.

According to the author:

- a. The awareness of sexual harassment at the workplace is increasing.
- b. The incidence of harassment is higher in universities than workplaces.
- c. Sexual harassment is much more commonly experienced by women than men.
- d. It is rare for men to experience sexual harassment.
- 29. Western scientists are now beginning to discover what the philosophers of India have known for mililenia: that the entire universe consists of one energy. The ancient Indian philosophers, who were scientists of the spirit, called that energy consciousness, or God. They felt that this supreme Consciousness created the entire cosmos out of its own being. A builder may use wood, stone, and other materials to construct something, but Consciousness used no external materials; it brought forth everything from within itself. They felt we are all portions of this universe of Consciousness. According to the Indian philosophers, we are not different from one another, and we are not different from God. If one sows a mango seed one will get a mango, never a lemon. In the same way, that which is born of God can never be other than God. They felt that within the human heart dwells a shimmering effulgence whose brilliance surpasses even that of the sun. This inner Consciousness is the same as that which creates and animates the entire universe. But we are not aware of this. Even though we have come from this Consciousness, we have changed our understanding about ourselves.

According to the author:

- a. Physicists are beginning to discover what Indian philosophers have known for many years, that the universe consists of one energy.
- b. Consciousness and God are identical, as are mangoes and lemons.
- c. Ancient Indian philosophers knew more than modern scientists.
- d. The Consciousness that created the universe is also inside of us.
- 30. None of this would be worth saying if Descartes had been right in positing a one-to one correspondence between stimuli and sensations. But we know that nothing of the sort exists.

The perception of a given color can be evoked by an infinite number of differently combined wavelengths. Conversely, a given stimulus can evoke a variety of sensations, the image of a duck in one recipient, the image of a rabbit in another. Nor are responses like these entirely innate. One can learn to discriminate colors or patterns which were indistinguishable prior to training. To an extent still unknown, the production of data from stimuli is a learned procedure. After the learning process, the same stimulus evokes a different datum. I conclude that, though data are the minimal elements of our individual experience, they need be sharped responses to a given stimulus only within the membership of a relatively homogeneous community; educational, scientific or linguistic.

Which sentence is best supported by the above paragraph?

- a. One stimulus can give rise to a number of different sensations.
- b. There is a one-to-one correspondence between stimuli and sensations.
- c. It is not possible to produce data from stimuli by using a learned procedure.
- d. It is not necessary for a group to be relatively homogeneous in order to share responses to stimuli.

UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL C. ANSWER KEY

1. c	16. b
2. c	17. c
3. a	18. c
4. c	19. c
5. b	20. a
6. b	21. a
7. d	22. b
8. c	23. b
9. c	24. b
10. d	25. d
11. b	26. c
12. c	27. d
13. a	28. a
14. a	29. d
15. d	30. a

D. DIAGNOSTIC WORKSHEET FOR UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL

For each question you answered incorrectly, go through the checklist below and place the number of the question missed next to each trait exhibited. This is designed to give you more insight into why you answered a problem incorrectly. By working to improve your abilities in these areas, you should notice an improvement in your scores.

Question Number (s)	Trait Exhibited
	1. I jumped to an incorrect conclusion.
	2. I misinterpreted what the question was asking.
	3. I had little confidence I could solve the problem.
	4. I didn't break the reading passage down into more easily understood parts.
	5. I knew I couldn't solve the problem, so I gave up and guessed.
	6. I made a careless error.
	7. I "followed a hunch" without checking it through.
	8. I didn't step back and evaluate the reasonableness of my solution.
	9. I worked mechanically because I knew it was hopeless.
	10. I didn't check my work.
	11. I became bored or frustrated, and took a guess
	I was inconsistent in my interpretation of parts of the reading passage.
	13. I didn't try to visualize the problem.
	14. I misinterpreted part of the reading passage.

15. I tried to answer the question without realizing that my understanding of a section of the reading passage was vague.

UNDERSTANDING AND INTERPRETING WRITTEN MATERIAL E. EXPLANATION OF ANSWERS:

This self study guide should be referred to whenever you've answered a question incorrectly, or have questions about the reasoning behind a particular answer.

1. The answer is C. Most people miss this question, for a variety of reasons. The most common tendency is to not read it carefully, and to then jump to conclusions. Often, people will sense that female salespeople provide faster service, but they become careless. Men who often pick Choice (A), since they sense women salespeople are faster, and Choice (A) states that you will receive faster service from the opposite sex. Women will often select Choice (B), since (B) states that you will receive faster service from the same sex, and they have a sense that women salespeople provide faster service. In both cases, they've reached incorrect conclusions because they haven't thought the problem through carefully enough. Others read the first sentence and assume that male salespeople will always provide faster service. The tendency to infer too much from information given in a problem, which is what happens in this case when people choose (D), is also a very common error. The paragraph does state that male salespeople lengthened their transaction time when dealing with female customers. But nowhere does it give possible reasons for this, and there is, in fact, no way of knowing from the paragraph if faster transaction time is even desirable. It is very important to base judgement solely on information provided to you in the test question.

You can be more certain of your answer if you can accurately break a problem down into parts, and work actively at solving it. For example, one way to solve this problem, particularly if you're very nervous, would be to write out the important information, directly comparing the salespeople with their times. You could make a table, but it's not necessary. Male salespeople spent an average of 25 minutes with male customers. Female salespeople spent an average of 30 minutes with female customers. Male salespeople spent 32 minutes with female customers, and female salespeople spent 22 minutes with male customers. Directly comparing the times, it becomes very clear that female salespeople provide faster service to both male and female customers.

	M	F	Customers
M	25	32	
F	22	30	
SALESPEOPLE			

Of course you may not need to do anything this elaborate--it may, in fact, slow you down. But if you need to visualize the problem, this method can be very helpful.

- 2. The answer is C. This was another very commonly missed question when we field tested this material. Choice (A) is incorrect because it is too sweeping a statement. Nowhere does the author state that "communication is not possible when people don't assume the same things or share the same values." This is too strong a statement. The author does wonder "how communication is possible.....", but that is not the same as stating that communication is not possible under those circumstances. Choice (B) is incorrect because you are supposed to choose an answer which corresponds with the phrase "According to the author." When that expression is used in these questions, it means you have to determine exactly what the author's opinion is. In this case, the author is comparing two schools of thought. While it may seem to us that the author favors the second school Choice(B), perhaps because to us it appears the more reasonable of the two, nowhere does the author say he or she favors one school over the other. Choice (B) implies too much. Choice (D) is incorrect because it too implies more than it should. Nowhere does the author state that communication is possible only when differences of background, experience and motivation are overcome. Choice (C) is correct because it is the only statement of the four we can be sure the author agrees with, as in the first sentence the author states, "In thinking about the many barriers to personal communications...."
- 3. The answer is A. Occasionally, you are asked to choose the "main idea" of a passage. This is difficult for many people. Sometimes it is helpful if, after you've read the passage, you first try to summarize its contents in one sentence, before looking at the choices available. In this case it would be more helpful if you judged each answer on its own merits. Choice (B) is incorrect because it is too narrow in scope, and also because of the use of the word "many." Only a few examples of plants are given in the paragraph. Choice (C) is incorrect because it is too sweeping a statement. The line drawn between classifying a chimpanzee and a starfish would, for example, be very clear. Choice (D) is also too sweeping a statement, and doesn't give us much specific information. That leaves Choice (A). While in this case we may feel we could make up a better answer than Choice (A), we have to remember that Choice (A) is the best of the four possible choices given to us. Sometimes on exams we are faced with choosing the "lesser of the evils" (like voting for President sometimes). Less frustration will result if you learn to expect that on some questions the answer you'd most like to see won't be there. In those instances, you'll have to choose the answer you like best, or dislike least, of the four.
- 4. The answer is C. In this section it's important to watch for the phrase "all of the following are true, except:." Many people miss these types of questions because they fail to notice the "except." Again, it's very important to carefully read the passage. The next to last line in the paragraph states "compared to four percent for non internationalized output." Choice (C) mentions "internationalized output."
- 5. Again, the importance of reading carefully. Choice (B) is the correct answer, as it is the only choice which is not true. Sentence (Six) states "If the Governor fails to act on a 30 day bill, it is said to have received a 'pocket veto." Choice (B) states it is a 10 day bill, which is incorrect.

- 6. The answer is B. Again, a "main idea" question. Choice (A) is incorrect because math teachers are not brought into the discussion until the last sentence, and they are definitely not the major concern of the author. Choice (C) is too sweeping a statement, and can't be supported by the information in the paragraph. Nowhere does it state that math, by its very nature, encourages rote, mechanical learning. While we may agree with Choice (D's) assessment of math, it is inferring too much to be the correct answer. It is an opinion not supported in the paragraph. Sometimes questions will include a "funny answer", which we may actually choose just to alleviate our boredom. Choice (B) is a good summary of the paragraph, and the best of the four possible answers.
- 7. The answer is D. Occasionally reading passages will appear that include potentially intimidating material. This is a good example of that type of question. We may think. "If we were expected to know physics we should have been told in advance." Or, "What kind of foolish unrelated, unnecessary, irrelevant question is this?" If we're not careful, we can spend a lot energy in this way, and we'll end up hurting our performance. Actually, this question doesn't involve outside knowledge, just careful reading and a calm approach. This one isn't particularly troublesome, once some of us get over our initial reaction. Choice (A) is incorrect because it is directly contradicted by the half of the first sentence. Choice (B) may look appealing because of the contrast in the passage between using a bathtub and chemical thermometer to measure the temperature of coffee, but it is too sweeping a statement. Nowhere in the paragraph does it state that it's always a good idea to use the smallest measuring device possible. Choice (C) again infers too much. In the example given, the chemical thermometer was more accurate than the bathtub thermometer, but that doesn't mean that all chemical thermometers will always be more accurate than all bathtub thermometers, in all situations, and applications. Choice (D) is confirmed by the first and last sentence.
- 8. The answer is C. Again, the importance of reading carefully, and of noting that they are asking for what is not true. Choice (A) is incorrect, because sentences four, five, and six support Choice (A). Choice (B) is incorrect because it too is supported strongly in the paragraph, particularly by sentences three and four. Choice (D) is incorrect because it is supported by sentences two and four. Choice (C) is correct because nowhere in the passage does it state that individuals can easily overcome their attitudes towards hierarchical authority. The passage indicates the opposite is the case.
- 9. The answer is C. Choice (A) is incorrect because nowhere in the passage does it state that conditions are rapidly improving for the seven targeted groups. Choice (B) is directly contradicted by the passage, which shows that women are not in a superior economic position. Choice (D) is incorrect because nowhere in the passage does it state that most women in this country live in large cities. Choice (C) is correct, and this is supported by sentences two, three and four.

- 10. The answer is D. Again, this is a passage that initially appears more intimidating than it really is. The answer is very straightforward, and is found in the last half of the sentence of the paragraph.
- 11. The answer is B. Choice (A) is incorrect because it is an unwarranted generalization supported by the paragraph. There are many reasons an employee may have a negative attitude, and the manger is not automatically to blame. Choice (C) is incorrect also because it is too broad. Not all good employees may leave a job under these conditions. Sentence three states "he or she will leave if that person has high aspirations....." Class (D) is incorrect, because it assumes too much. While the passage seems to support this, nowhere does the author state this is something managers should do for their employees. It's an important distinction, common in these types of questions. Choice (B) is a safer choice, and is supported by sentences one, two and four.
- 12. The answer is C. Choice (A) is incorrect because it is an unsupported generalization. Choice (B) is incorrect for the same reason. Nowhere in the passage does the author state that Elizabethan dramatists were more talented than Greek dramatists. Choice (D) is also a generalization. While one could say that the example used in the paragraph would suggest that in this instance Elizabethans would be more historically accurate, to say that Greeks were historically more inaccurate than Elizabethans is too sweeping a statement. Choice (C) is supported particularly by sentence four through seven.
- 13. The answer is A. Choice (B) is incorrect because this premise is not stated anywhere in the passage. Choice (C) is incorrect for the same reason. Choice (D) may seem reasonable at first because the author speaks of the need for local planning, and county governments are more of a local unit than state governments, but it's too broad a statement to say that county governments are more effective than state governments. Choice (A) is correct and is strongly supported by sentence four.
- 14. The answer is A. This is another "main idea" question. Choice (B) is incorrect because it is too specific. While the thought is contained in the passage, it does not represent the main idea of the paragraph. Choice (C) is incorrect because it is making an assumption that the early will "soon run out of vital mineral resources." It's unclear exactly how long a time period is meant by the author, in the last sentence. In addition, it does not do as good a job at summarizing the main idea as Choice (A). Choice (D), while contained in the passage, is too specific to be a "main idea" answer. Choice (A) is the best of these four choices, as it best sums up the passage, while being a more caution answer than Choice (C).
- 15. The answer is D. Choice (A) is incorrect because, while the National Association of Manufacturers opposed the legislation in question, nowhere in the passage does it state that

companies that were temporarily unprofitable opposed it. Choice (B) is incorrect because it is too broad a statement. Not all corporations unable to take advantage of tax incentives were being referred to in the last paragraph, just those "firms with temporary tax losses (a conditional especially characteristic of new enterprises) were often unable to take advantage of investment tax incentives." Note also the more specific reference to "investment tax incentives." Again, the importance of reading passages carefully. Choice (C) is incorrect because nowhere does the passage criticize the National Association of Manufacturers or the Business Roundtable for opposing the leasing provisions. Choice (D) is the correct answer, and is supported by sentences one through five, and the last sentence. Even if you were a little uncomfortable with the wording of Choice (D), it is still the best of the four possible choices, as the other three are inaccurate.

- 16. The answer is B. Choice (A) is incorrect because nowhere in the passage does it suggest we "cultivate the art of being ambiguous." That is too strong a statement. Choice (C) is incorrect because it is too broad. The passage isn't saying all westerners don't have a dual frame of reference. Choice (D) assumes too much. The passage is not implying it's important to recognize the ambiguous aspect of all situations. It is stating that ambiguity may sometimes be an effective tool for managers, Choice B.
- 17. The answer is C. Choice (A) is too simplistic, and is not supported by the paragraph. Choice (B) is not supported by the passage. Sentence two also undermines this argument. Choice (D) is too sweeping a statement, with overly strong language ("destined to fail"), and again is not supported by the passage. Choice (C) is the only one that is supported by the paragraph, particularly in the first and last sentences. Most people who miss this question do so because they get intimidated by the reading passage.
- 18. The answer is C. Choice (A) is incorrect because it is jumping to an unwarranted conclusion not supported by the paragraph. Choice (B) is again assuming too much, as the author does not state this. Choice (D) interprets the passage in a way not really supported in the paragraph. It's a strange answer, but we can't totally rule it out until we compare it to Choice (C), as we know that strangeness sometimes doesn't matter if it's the best of the four possible choices. Choice (C), however, gives a much better interpretation of the passage than Choice (D), and is supported more specifically by sentences two through five.
- 19. The answer is C. (Sometimes this happens, you'll have three or four of the same letters in a row on your answer sheet.) Choice (A) is incorrect because it is a broad generalization unsupported by the paragraph. Choice (B) is incorrect because it is again a generalization not supported by the passage. It is a misinterpretation of the last two sentences. Choice (C) is correct, and is supported by the first three sentences.
- 20. The answer is A. Choice (B) is incorrect because it is a misinterpretation of the tortoise-and-hare example given. The passage does not state that it's best to spend a long time on solving

problems; that is a generalization that, if applied to taking promotional exams, for example, could get a candidate in big trouble. Choice (C) is tempting, but nowhere does the passage state that motivation is the most important component in problem solving. Other components of problem solving aren't mentioned, so it is difficult to compare them. Choice (D) is contradicted somewhat by the last sentence. Choice (A) is supported by the fifth sentence in the paragraph, and is the best of the four choices given.

- 21. The answer is A. Choice (B) is incorrect because it is a generalization not warranted by the passage. Choice (C) is incorrect because these sentiments are not contained in the passage. The same is true of Choice (D). In both of these cases, the test writer is hoping to trick people into answering on the basis of their expectations, rather than from information contained in the reading passage itself. Choice (A) is supported by the second and third sentences.
- 22. The answer is B. Choice (A) is incorrect because it is unsupported by the passage, and is a misinterpretation of the first sentence. Choice (C) is a misinterpretation of the fifth sentence. Choice (D) is also a misinterpretation of the fifth sentence. Nowhere does it state that analytic philosophers are more argumentative than other philosophers. It states that analytic philosophers identify philosophical ability with argumentative skills, but that is not the same thing. Choice (B) is strongly supported by the last two sentences.
- 23. The answer is (B). Choice (A) is incorrect because it is a generalization not supported by the paragraph. Sentences two and three contain qualifying words like "some experiments", "sometimes" and "not always necessary." Choice (C) is incorrect because it is too much of a generalization, not directly stated by the author, and because of the use of the word "often", which is not supported by the passage. Choice (D) is incorrect because it is a generalization, and also because the issue of power is not specifically addressed by the author, except in a quote in the next to last sentence. Choice (B) is supported strongly by the third sentence, which makes it the best choice.
- 24. The answer is B. This is another good example of the use of intimidating material. Again, one doesn't need to know algebra to answer this question. Careful reading is all that is required. Many people pick Choice (A) because it "sounds good." Yet, if you carefully read through the passage, you would see that it is gibberish, and makes no sense. But many people panic, and fail to read the passage clearly. Choice (B) is correct, and this is stated clearly in sentence six, with help from sentences three, four and five. Choices (C) and (D) are also gibberish, intended to impress. This is a nasty question, because it is easy, yet difficult for people because of the intimidating subject matter.
- 25. The answer is D. Answer A is incorrect, as the last sentence shows that unit labor costs were higher in Germany than they were in Japan. Choice (B) is inferring too much from the passage, as the author does not state this anywhere. Choice (C) is also inferring too much, and may be

- contradicted by the next to last sentence, although no definition of the controversial term "productivity" is provided. Choice (D) is strongly supported by the second and third sentence.
- 26. The answer is C. Choice (A) is incorrect because it assumes too much. While the sentiments in Choice (A) are expressed in the first sentence, the word "perhaps" is used. Choice (A) goes a step further and makes an assertion that is not supported by the passage. Choice (B) is incorrect, and a misreading of information given in the fourth sentence. Choice (D) is not mentioned anywhere in the passage. It's the kind of answer people select when they get worn down and a little "punchy." Choice (C) is supported by the third sentence.
- 27. The answer is D. This is another "main idea" question. Choice (A) is incorrect because it is too broad. Who is it that is trying to attain immortality? Most importantly, nowhere is this sentiment expressed in the paragraph. The main idea is concerned with how we could ever read all the books, not with the question of immortality for the authors of the books. Choice (B) is incorrect because nowhere does the passage state that fewer people are reading books because too many are being published. Choice (C) is also incorrect because it is unsupported by the passage. Choice (D) is correct, and strongly supported by sentences four through seven, and the last paragraph.
- 28. The answer is A. Choice (B) is incorrect because it is not mentioned anywhere in the passage. Some people miss this question, however, because they assume the studies are conducted by universities, and because the word "professor" occurs in the second sentence. Choice (C) is incorrect, again, because we have to answer keeping the phrase "according to the author" in mind. Certainly the information contained in the paragraph seems to support Choice (C), but nowhere does the author explicitly state this. Choice (D) is contradicted by information in the last sentence (15% wouldn't be considered rare), but more importantly, again, this assertion is not stated explicitly by the author. Choice (A) is the correct choice and is directly supported by the first two and the last sentences.
- 29. The answer is D. Choice (A) is incorrect because the word physicist is used, while the passage says "western scientists." Choice (B) is incorrect and is a misinterpretation of sentences six and seven. While it may seem from the first sentence that Class (C) is a possibility, because philosophers had this knowledge first, it is too sweeping a statement. The author doesn't explicitly state that scientists do not know as much in this area. Also, any expertise that scientists do have, that Indian philosophers do not, is not addressed. Choice (D) is supported by the last four sentences.
- 30. The answer is A. Choice (B) is contradicted by the first two sentences. Choice (C) is directly contradicted by sentence seven. Choice (D) is not mentioned anywhere in the passage. Although it may "look good", it is important to break sentences like this down to get at what they are really saying. Choice (A) is directly supported by sentence four.