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HOW TO PREPARE FOR THE

GRE[®]

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TEST PREPARATION SERIES

HOW TO PREPARE
FOR THE
**Graduate
Record
Examinations**

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PART I
Description
of the GRE
General Test

Format of the GRE General Test

Section of Test	Number of Questions	Time Allowed
Section I: Verbal	7 Sentence Completions 9 Analogies 11 Reading Comprehension 11 Antonyms	30 minutes
Section II: Analytical	25 Analytical Ability Questions (Analytical Reasoning and Logical Reasoning)	30 minutes
Section III: Quantitative	15 Quantitative Comparisons 15 Data Interpretation and Discrete Quantitative Questions	30 minutes
Section IV: Analytical	25 Analytical Ability Questions (Analytical Reasoning and Logical Reasoning)	30 minutes
Section V: Verbal	7 Sentence Completions 9 Analogies 11 Reading Comprehension 11 Antonyms	30 minutes
Section VI: Quantitative	15 Quantitative Comparisons 15 Discrete Quantitative and Data Interpretation Questions	30 minutes
Section VII: Verbal or Quantitative or Analytical	Varies with type of questions	30 minutes
Total Time = 210 minutes or 3½ hours		

As the table above shows, the GRE (Graduate Record Examinations) General Test consists of seven sections, each of which is 30 minutes long. You should be prepared to spend four hours taking the GRE. This period includes time to complete registration before the test begins and to take a short break in the middle of the exam.

Each test contains two verbal sections, each consisting of 38 questions; two mathematical sections (called “quantitative” sections by the test makers), each consisting of 30 questions; and two analytical sections, each consisting of 25 questions. The seventh section may be verbal, quantitative, or analytical. This section is experimental; that is, it consists of questions

the test makers are trying out for future editions of the test. The seven sections may appear in any order on the test you receive. Furthermore, several editions of the test are used during one session. The test your neighbor has will not be the same as yours.

Your answers on the experimental section do not count toward your final score. However, the experimental section looks just like the regular sections, and since the various sections may appear in any order on any test, you will not know which is the experimental one. If, for example, your edition of the test contains three quantitative sections, you will know that one of them is the experimental section, but you will have no way of knowing which one. In addition, since you are allowed to see only one section of the test at a time, you won't know until toward the end if the test has three quantitative sections; the experimental one may be far behind you by then. That is why you must do your best on every section.

Scoring of the GRE

The system of scoring used for the GRE imposes *no penalty* for an incorrect answer. Your score is based simply on the number of questions you answer correctly. It is therefore advisable to answer all questions on the examination. If you do not know the answer to a question, make an educated guess. Try to eliminate some of the choices and make a selection from those remaining. You risk nothing by guessing. A general test-taking strategy to keep in mind is to go through an entire section answering the questions you can answer without much effort and then go back and spend extra time working on the tougher questions. In the closing moments, guess the answers to any remaining questions.

The number of correct answers on the two verbal sections is your *verbal raw score*. It can vary from 0 to 76. The number of correct answers on the two quantitative sections is your *quantitative raw score*. It can vary from 0 to 60. Finally, the number of correct answers on the two analytical sections is your *analytical raw score*. It can vary from 0 to 50.

Your three raw scores are then converted by statistical methods to *scaled scores* to make it simple to compare the scores of different editions of the GRE; a scaled score on one edition of the test is comparable to the same scaled score on other editions.

The scaled scores range from 200 to 800. However, these scores are not commonly below 300 or above 700. The average score is 500, and about two-thirds of all test takers score between 400 and 600.

At the beginning of Section VII of this book you will find a chart for converting your raw scores on the practice tests to scaled scores. You can thus compare your results from one practice test to the next and monitor your progress. Your scaled scores will give you a good approximation of how you will do on the actual GRE.

When evaluating your work on the practice tests, consider a scaled score above 630 as excellent and one between 500 and 629 as good. A score between 480 and 500 indicates that you rank at about the midpoint of the range of scores.

Types of GRE Verbal Ability Questions

The four types of GRE verbal ability questions test the extent of your vocabulary and the degree to which you can read with understanding. The four types of questions are:

Antonyms
Analogies
Sentence Completions
Reading Comprehension

The antonym and analogy questions are used to test your vocabulary, and the sentence completions and reading comprehension questions are used to test your reading ability. Each type of verbal question is examined in detail in Part II of this book.

Types of GRE Quantitative Ability Questions

Three types of questions are posed in the quantitative ability sections of the GRE. These types of questions are:

Quantitative Comparison
Discrete Quantitative
(self-contained problems to be solved)
Data Interpretation

The quantitative ability questions test your skills in arithmetic (including your understanding of integers, fractions, percentages, and averages), elementary algebra (including your understanding of formulas, linear equations, and simple quadratic equations), and informal geometry (including your understanding of angle relationships, right-triangle relationships, area, perimeter, and volume). Your ability to interpret graphs and tables is also tested.

Each type of quantitative ability question is examined in detail in Part III of this book. For a review of the various mathematical topics tested in these sections, see Parts V and VI.

Types of GRE Analytical Ability Questions

The two types of questions that appear in the analytical ability section of the GRE test your reasoning skills. These types of questions are:

Analytical Reasoning
Logical Reasoning

No knowledge of formal or symbolic logic is required for success on these questions. Each question contains all the information you will need to solve it. Both types of questions are examined in detail in Part IV of this book.

PART II
Strategies for the
Verbal Ability
Questions

The GRE Verbal Ability Questions: What They Are Like, What They Test

Part II of this book will describe the four types of GRE verbal questions and then provide detailed instructions for answering each type of question. When you complete your study of Part II, you will be ready to face the verbal sections of the GRE with the confidence it takes to work effectively and score high on them.

As mentioned in Part I, the four types of questions in the verbal section of the GRE are:

Antonyms
Analogy/Word Relationships
Sentence Completions
Reading Comprehension

Each verbal section consists of 7 sentence completions, 9 analogies, 11 reading comprehension questions, and 11 antonyms, in that order, for a total of 38 questions.

ANTONYM QUESTIONS—OPPOSITES

When you think of vocabulary tests, you probably think of definitions or synonyms. The GRE vocabulary question, however, does not ask you for a synonym; it asks you to select an opposite, or antonym, for a given word. As shown in the following example, you will be given a word printed in capital letters, five words or phrases that are lettered (a) to (e), and the task of selecting the lettered word or phrase that is *most nearly opposite* in meaning to the capitalized word.

WEAK

- (a) simple
- (b) soft
- (c) deft
- (d) strong
- (e) heavy

Answer: (d)

This simple example is intended to illustrate the nature of the antonym question, not to test your vocabulary power. The antonym for *weak* is, of course, *strong*.

The GRE is not likely to test you on words as familiar as the one in the previous example; it will test you on the wide range of words that you, as either a college student or a graduate, would be expected to have encoun-

tered in your recreational reading and course work. Some words will be more familiar to you than others; some may be completely unfamiliar.

The antonym questions are intended to test the extent of your knowledge of vocabulary, your skill in differentiating among shades of meaning, and your ability to reason.

In subsequent pages, you will find suggestions for enlarging your vocabulary, advice on avoiding the pitfalls built into this question category, and instruction that will help you improve your performance in selecting opposites. In Part VIII you will find an extensive vocabulary list for study.

ANALOGY QUESTIONS—WORD RELATIONSHIPS

In the analogy/word relationship question, you are given a pair of capitalized words and five other pairs of words lettered (a) through (e); you are expected first to find a relationship between the two capitalized words and then to select a lettered pair of words that are related to one another in a way that is *most similar* to the way in which the capitalized pair is related.

Note carefully how the analogy question is written. The two words of each pair are separated by a colon, as follows: “chef : recipe,” “doctor : diagnosis.” The colon here is a kind of shorthand for the phrase “is related to.” Another symbol, a pair of colons, separates the capitalized pair of words from the five pairs of lettered choices. The double colon here means “in the same way that,” or words to that effect.

Substitute the words for the colon symbols, and the analogy question reads, “The first word of the capitalized pair is related to the second word of that pair in the same way that the first word of one of the lettered pairs is related to its second word.” The sample question that follows illustrates the format and nature of the analogy question:

TALL : SHORT :: (a) fire : water
(b) skilled : deft (c) hot : cold
(d) now : later (e) hard : rock

Answer: (c)

Tall and *short* are adjectives used to describe opposite physical dimensions. Similarly, *hot* and *cold* are adjectives used to describe opposite physical properties. Choice (c) is, therefore, the correct answer.

Fire and *water* are in opposition—water quenches fire—but they are not words that describe opposite qualities. The words in choice (b) are synonyms. In choice (e), the first word describes a physical quality of the item denoted by the second word. In neither (b) nor (e) is the relationship similar to that in the given pair. The words in choice (d) are not opposites—*earlier*, not *now*, is the opposite of *later*. Furthermore, neither word describes physical qualities. The answer to the sample question should be stated as follows: *Tall* is the opposite of *short* in the same way that *hot* is the opposite of *cold*.

The relationship in the sample question is easily perceived. Actual test questions will cover a fairly wide range of relationship types and will vary in their levels of difficulty.

The analogy question tests your ability to see relationships between words, distinguish among different types of relationships, and recognize similarities between relationships. This question also tests your vocabulary, your general knowledge, and your ability to think logically.

Later in Part II you will be given examples of the types of word relationships you are likely to encounter on the GRE and instruction on how to solve them effectively. You will also learn strategies and techniques that will permit you to work more quickly and effectively, with greater confidence and security about your ability to deal with this type of question.

SENTENCE COMPLETION QUESTIONS

The sentence completion question of the GRE tests your ability in several areas: vocabulary, correct usage, sentence structure, logical thinking, and reading comprehension.

For this type of question, you are given a sentence with one or two blanks in it where key words have been removed. From among five choices, lettered (a) through (e), you are asked to select the word or words that, when substituted for the blanks, *best complete the meaning of the sentence*. The words that you select must be suitable from the point of view of meaning, correct usage, and grammatical aptness. With the blanks filled, the sentence must be coherent and logical. Each sentence contains all the information necessary for answering the question. Here is an example of the sentence completion question:

The trustees of the Orchestral Society had hoped to reap substantial benefits through the sale of the paintings that Mr. Cooper had — —, but the proceeds from the auction, which was poorly attended because of the blizzard, were — — —.

- (a) retained . . . unworthy
- (b) lent . . . confiscated
- (c) bequeathed . . . disappointing
- (d) assembled . . . enormous
- (e) appraised . . . taxable

Answer: (c)

This incomplete sentence, as it stands, has structural, logical, and informational clues to help us fill in the blanks and complete it. The word “but” is a reversal indicator; it is a structural clue that implies that the trustees’ hopes for substantial benefits were not fulfilled. Furthermore, the sentence informs us that attendance at the auction was poor. That information, coupled

with the implication of the reversal indicator, leads us to conclude that the proceeds were low and, therefore, *disappointing* rather than *enormous*.

What of the other possibilities? Choices (a) and (b) can be eliminated. The trustees would not sell paintings that were *lent* to them, nor would they sell paintings that Mr. Cooper had *retained*—presumably for himself. As for choice (e), there is nothing in the sentence to support that choice. With the blanks filled in by the words in choice (c), the completed sentence is logical, grammatical, meaningful, and correct.

Later in Part II you will learn about the importance of indicator words, sentence logic, linguistic elements, contextual clues, and correct usage in determining the proper choice of answer for the sentence completion question. You will also find a discussion of appropriate questions to ask yourself when working on these questions.

READING COMPREHENSION QUESTIONS

You are probably already familiar with the reading comprehension question because it appears on many standardized tests. In this part of the GRE, you are given a passage to read and are asked to answer a number of questions dealing with the material in that passage. The questions use the same format found in the other verbal sections: each question is followed by answer choices lettered (a) through (e). You must select, solely on the basis of the contents of the passage, the one that best answers that question.

The reading passages come from four disciplines: the social sciences, biological sciences, physical sciences, and humanities. Some of the questions are concerned with identifying stated information and specific details in the passage, while others deal with implied or tacit ideas, opinions, or materials. Some ask for identification of the main idea or the central thrust of the passage, while others ask about supporting arguments or ideas. Some are concerned with the author's purpose, point of view, reasoning, or argumentation, and others ask you to apply to other issues the author's point of view as expressed or implied in the passage.

No prior knowledge of the material in a passage is needed to answer its questions; each passage contains all the necessary information. The following sample reading passage and questions are representative of the type of material you will encounter on the exam:

In the Great Lakes, the life cycles of individual organisms provide a number of fascinating, although brief, scenarios. But together, all the agents of change among the plants, birds, and fish become a full-length play on the massive stage of the Great Lakes basin.

Several important props must be described before we get to the play's narrative. One is the relative shallowness of the lakes, scraped out some 10,000 to 15,000 years ago by receding ice sheets. Another is

the size of these inland seas, so enormous that the earth's rotation plays, through the Coriolis force, a major role in the dynamics of the Great Lakes, as it does in the oceans. And because the lakes all outflow either into each other or into the Saint Lawrence River and differ in surface size and in volume, they all have different water residence times.

1. Which of the following are (is) directly stated in the passage?
 - I. The Great Lakes all flow directly into the Saint Lawrence River.
 - II. The Great Lakes basin is vast, but it is not very deep.
 - III. The props needed for a full-length play about the Great Lakes would require a massive stage.
 - (a) I only
 - (b) II only
 - (c) III only
 - (d) I and II only
 - (e) I, II, and III
2. From the information given in the passage, we can infer that
 - (a) the birds and fish of the Great Lakes are unique organisms
 - (b) the Coriolis force pushed the ice sheets back
 - (c) the Great Lakes are as large as any of the oceans
 - (d) water residence time is the length of time that a particular particle of water spends in one of the lakes before it flows out of that lake
 - (e) water residence time varies from 10,000 to 15,000 years according to particular lake conditions
3. This passage is probably part of
 - (a) a newspaper article on the decline in fish production in the Great Lakes
 - (b) an article on the natural history of the Great Lakes
 - (c) a prospectus offering waterfront land for real estate development
 - (d) a treatise on the Coriolis force
 - (e) a water pollution study with emphasis on the Great Lakes

Answers: 1. (b) 2. (d) 3. (b)

In question 1, item I is not stated in the passage. The last sentence says that the lakes outflow *into each other* or into the Saint Lawrence River. Item III represents a mistaken notion of what the passage actually says. The Great Lakes region forms a massive stage figuratively; the idea of stage, play, and props is not to be taken literally. Item II is supported by the last sentence in paragraph one and the second sentence in paragraph two. Since only item II is directly stated in the passage, the correct answer is choice (b).

In question 2, the statement in choice (d) can be inferred from the last sentence of the passage. The author concludes, "... they all have different