

GRE Sample Paper 05

A) Test Components: Analytical Writing — Verbal Reasoning — Quantitative Reasoning

B) Total Questions: 108 Questions

C) Total Time Allowed: 3 Hours 45 Minutes

- **Analytical Writing:** 2 Essays — 60 Minutes
- **Verbal Reasoning:** 2 Sections — 82 Minutes Total
- **Quantitative Reasoning:** 2 Sections — 94 Minutes Total

D) Marking Scheme:

- **Correct Answer:** +1 Point
- **Incorrect/Unattempted:** 0 Points (No Negative Marking)
- **Multi-blank/Equivalence:** No partial credit.

SECTION I: ANALYTICAL WRITING

1. Analyze an Issue (30 Minutes)

"Governments should place few, if any, restrictions on scientific research and development, even when that research is perceived as controversial or unethical by a significant portion of the population."

2. Analyze an Argument (30 Minutes)

The following appeared in a memorandum from the manager of The Glee Club, a retail store specializing in musical instruments.

"Over the last two years, our flagship store in the Central Mall has seen a 15 percent decline in overall foot traffic. During this same period, the 'Rock-n-Roll' music store located across town in the newer Westside Plaza reported record profits. To reverse our declining sales and capitalize on the growing customer interest in musical instruments, we should close our Central Mall location and relocate to the Westside Plaza. This move will guarantee an increase in our customer base and return our store to profitability."

SECTION II: VERBAL REASONING - PART 1

Q1. The philosopher's latest treatise was notoriously _____; even seasoned scholars in the field found themselves struggling to decipher his dense, jargon-heavy arguments.

- A. Recondite
- B. Banal
- C. Pellucid
- D. Frivolous

Q2. Despite his reputation as a _____ who disdained all social conventions, the artist was surprisingly gracious and charming when meeting his patrons in person.

- A. Misanthrope
- B. Sycophant
- C. Philanthropist
- D. Precursor

Q3. The author's prose is often (i) _____ by a tendency toward extreme brevity, yet this very (ii) _____ is what makes her stories so hauntingly effective.

- A. (i) Characterized; (ii) Economy
- B. (i) Marred; (ii) Verbosity
- C. (i) Characterized; (ii) Diffidence
- D. (i) Belied; (ii) Economy

Q4. While many early critics (i) _____ the new symphony as a chaotic mess of noise, modern listeners have come to appreciate its (ii) _____ structure and innovative use of dissonance.

- A. (i) Extolled; (ii) Haphazard
- B. (i) Derided; (ii) Intricate
- C. (i) Derided; (ii) Superficial
- D. (i) Ignored; (ii) Intricate

Q5. The passage suggests that the "Luddite movement" of the early 19th century:

- A. Was motivated purely by a hatred of technological progress itself.

- B. Was a response to the erosion of traditional labor rights and working conditions.
- C. Succeeded in permanently halting the mechanization of the textile industry.
- D. Was composed primarily of wealthy landowners fearing urban expansion.

Q6. According to the passage, the "frame-breaking" riots were primarily intended to:

- A. Force factory owners to negotiate better wages and labor standards.
- B. Destroy the factories so that workers could return to farming.
- C. Demonstrate the superior quality of hand-woven fabrics over machine-made ones.
- D. Steal the new technology to sell it to foreign competitors.

Q7. The author mentions the "1812 Frame Breaking Act," which made the destruction of machines a capital offense, primarily to:

- A. Illustrate the government's severe and protective stance toward industrial capital.
- B. Argue that the Luddites were treated fairly under the legal system of the time.
- C. Explain why the movement gained so much popular support in rural areas.
- D. Contrast the British legal system with that of neighboring European nations.

Q8. The CEO's public apology was widely seen as _____, as it was issued only after the company's stock price had plummeted and lawsuits were filed.

- A. Spurious and Disingenuous
- B. Candid and Heartfelt
- C. Equanimous
- D. Fortuitous

Q9. The desert landscape appeared _____ to the untrained eye, yet it actually teems with a diverse array of nocturnal wildlife.

- A. Desolate and Stark
- B. Lush and Verdant
- C. Ephemeral
- D. Teeming

Q10. A tech company introduced free gourmet lunches to increase employee "office presence." However, after a year, the company found that while employees stayed for lunch, they left the office earlier in the afternoon than they had before. Which of the following best explains this result?

- A. The quality of the food was higher than what employees could find elsewhere.
- B. The social interaction during lunch satisfied the employees' need for collaboration early in the day.
- C. The heavy meals caused a mid-afternoon drop in energy, leading employees to finish work at home.
- D. Most employees reported that the free lunch was their favorite company benefit.

Q11. Choose the sentence that correctly uses the word "effect" as a verb:

- A. The new manager hopes to effect significant changes in the department's culture.
- B. The cold weather had a negative effect on the harvest.
- C. The medication's effect was felt almost immediately.
- D. The producer was happy with the sound effects in the film.

Q12. In the phrase "the calculated silence of the witness," the word "calculated" most nearly means:

- A. Determined by mathematical probability
- B. Deliberate and planned
- C. Estimated based on incomplete data
- D. Cold and unfeeling

SECTION III: VERBAL REASONING - PART 2

Q1. The environmental crisis is (i) _____, yet the (ii) _____ response from world leaders has left many activists (iii) _____ about the future.

- A. (i) Imminent; (ii) Lackadaisical; (iii) Despondent
- B. (i) Distant; (ii) Vigorous; (iii) Hopeful
- C. (i) Imminent; (ii) Energetic; (iii) Despondent
- D. (i) Trivial; (ii) Lackadaisical; (iii) Indifferent

Q2. The city's infrastructure was (i) _____, but the (ii) _____ influx of federal aid allowed for a complete overhaul of the transit system.

- A. (i) Decaying; (ii) Substantial
- B. (i) Modern; (ii) Meager
- C. (i) Decaying; (ii) Negligible

D. (i) Robust; (ii) Substantial

Q3. To the voters, the candidate's promises seemed (i) _____, but her opponents argued they were (ii) _____ attempts to buy votes without any plan for implementation.

A. (i) Sincere; (ii) Opportunistic

B. (i) False; (ii) Altruistic

C. (i) Sincere; (ii) Principled

D. (i) Vague; (ii) Opportunistic

Q4. The ecologist found the species (i) _____, but the (ii) _____ destruction of its habitat made its survival increasingly unlikely.

A. (i) Resilient; (ii) Systematic

B. (i) Fragile; (ii) Accidental

C. (i) Resilient; (ii) Fortuitous

D. (i) Rare; (ii) Systematic

Q5. The governor's reputation for _____ was well-earned; she often made decisions that benefited her own family's business interests.

A. Integrity

B. Nepotism

C. Probity

D. Altruism

Q6. The climate report was so _____ that it left no room for doubt about the impact of carbon emissions on global temperatures.

A. Unequivocal

B. Ambiguous

C. Vague

D. Equivocal

Q7. According to the passage, "Invasive Species" are particularly dangerous because they:

A. Are always larger and stronger than native species.

B. Lack natural predators in the new environment to control their population.

C. Can only survive in environments that have been destroyed by humans.

D. Have higher intelligence than the species they replace.

Q8. The author mentions the "Brown Tree Snake in Guam" primarily to:

- A. Provide a case study of how an invasive species can decimate local bird populations.
- B. Argue that snakes are the most dangerous type of invasive animal.
- C. Explain how island ecosystems are naturally resistant to outside influence.
- D. Describe a successful government program to eradicate invasive reptiles.

Q9. Which of the following best defines the "homogenization of the biosphere" discussed in the text?

- A. The process by which distinct regional ecosystems become increasingly similar.
- B. The genetic engineering of all crops to be identical.
- C. The total extinction of all life forms on Earth.
- D. The creation of artificial environments for endangered species.

Q10. A study shows that eating spicy food is linked to a longer lifespan. Critics argue that people who eat spicy food also live in warmer climates with more access to fresh fruit. Which weakens the conclusion that spicy food itself extends life?

- A. Spicy food can cause digestive issues in some people.
- B. Fresh fruit consumption is highly correlated with longevity.
- C. The study followed participants for over twenty years.
- D. Capsaicin, found in peppers, has anti-inflammatory properties.

Q11. The diplomat was _____, always managing to settle disputes without causing anyone to lose face.

- A. Suave and Urbane
- B. Boorish and Churlish
- C. Insolent
- D. Gauche

Q12. The instructions were _____, leaving no doubt about how to assemble the complicated machinery.

- A. Explicit and Lucid
- B. Vague and Ambiguous
- C. Obscure

D. Nebulous

Q13. The new tax was _____, placing a heavy burden on those least able to afford it.

A. Onerous and Burdensome

B. Light and Trivial

C. Inconsequential

D. Negligible

Q14. The mountain stream was _____, allowing one to see every pebble on the bottom.

A. Limpid and Pellucid

B. Turbid and Muddy

C. Opaque

D. Murky

Q15. The politician's speech was _____, designed to stir up the emotions of the crowd rather than appeal to their reason.

A. Inflammatory and Incendiary

B. Calming and Soothing

C. Anodyne

D. Placid

SECTION IV: QUANTITATIVE REASONING - PART 1

Q1. A merchant purchased a shipment of goods and applied a 50% markup to the cost to set the retail price. During a seasonal sale, the merchant then reduced this retail price by 50%.

Quantity A	Quantity B
The price after the 50% discount	The original cost to the merchant

A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

Q2. The sum of four consecutive integers is 10. What is the smallest of these four integers?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Q3. The radius of circle R is 4. The side of square S is 7.

Quantity A	Quantity B
The circumference of circle R	The perimeter of square S

- A. Quantity A is greater.
- B. Quantity B is greater.
- C. The two quantities are equal.
- D. The relationship cannot be determined from the information given.

Q4. $0 < x < 1$

Quantity A	Quantity B
x^2	$\sqrt{x}$

- A. Quantity A is greater.
- B. Quantity B is greater.
- C. The two quantities are equal.
- D. The relationship cannot be determined from the information given.

Q5. If $\frac{x}{4} + 5 = 11$, then $x - 3 =$

- A. 18
- B. 21
- C. 24
- D. 27
- E. 30

Q6. What is the sum of the first five positive multiples of 3?

- A. 15
- B. 30
- C. 45
- D. 60
- E. 75

Q7. A set of cards is numbered 1 through 20. If one card is picked at random, what is the probability that the number on the card is a prime number?

- A. $\frac{2}{5}$
- B. $\frac{9}{20}$
- C. $\frac{1}{2}$
- D. $\frac{11}{20}$
- E. $\frac{3}{5}$

Q8. A triangle has a base of 14 inches and a height of 6 inches. What is the area of the triangle in square inches?

- A. 21
- B. 42
- C. 64
- D. 84
- E. 100

Q9. If n is a positive integer that is a multiple of both 2 and 5, which of the following must be true? (Select all that apply)

- ☐ n is a multiple of 10.
- ☐ n^2 is a multiple of 100.
- ☐ $n + 10$ is a multiple of 10.

Q10. A water tank can be filled by a hose at a rate of 120 gallons per hour. How many minutes will it take to fill a 40-gallon tank?

Q11. If $5^{n-1} = 125$, then $n^2 =$

- A. 4
- B. 9

C. 16

D. 25

E. 36

Q12. The sum of 8 numbers is 160. What is the average (arithmetic mean) of these 8 numbers?

SECTION V: QUANTITATIVE REASONING - PART 2

Q1. $0 < x < y$.

Quantity A	Quantity B
$1/x$	$1/y$

A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

Q2. p is a prime number such that $10 < p < 20$.

Quantity A	Quantity B
p	15

A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

Q3. Set $A = \{2, 4, 6\}$ and Set $B = \{2, 4, 6, 8, 10\}$.

Quantity A	Quantity B
The standard deviation of Set A	The standard deviation of Set B

A. Quantity A is greater.

B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

Q4. A retailer buys a gadget for \$80 and sells it for \$100. What is the percent profit based on the cost?

- A. 10%
- B. 20%
- C. 25%
- D. 30%
- E. 40%

Q5. Working alone at their respective constant rates, Machine *X* takes 2 hours to complete a job and Machine *Y* takes 3 hours to complete the same job. How many hours will it take for both machines to complete the job together?

- A. 1.2
- B. 1.5
- C. 2.5
- D. 5.0
- E. 6.0

Data Interpretation: Factory Output (2019-2022)

Year	Product A (Units)	Product B (Units)
2019	5,000	2,000
2020	6,000	3,000
2021	4,500	4,500
2022	8,000	4,000

Q6. What was the percent increase in total production ($A + B$) from 2019 to 2020?

- A. 15.5%
- B. 20.0%
- C. 28.6%
- D. 32.4%
- E. 40.0%

Q7. In 2021, Product B production accounted for what percent of the total units produced that year?

- A. 33.3%
- B. 40.0%
- C. 45.0%
- D. 50.0%
- E. 60.0%

Q8. What was the average (arithmetic mean) production of Product A over the four-year period?

Q9. A rectangle has a length of 8 and a width of 6. What is the length of the diagonal of the rectangle?

- A. 7
- B. 10
- C. 12
- D. 14
- E. 16

Q10. If $x \neq 0$, simplify the expression $\frac{(5x^4)^2}{5x^5}$. What is the value of the coefficient m in the resulting term mx^n ?

Q11. A person buys a total of 15 pieces of fruit consisting of only apples and oranges. Apples cost \$0.60 each and oranges cost \$0.40 each. If the total cost was \$7.80, how many apples were bought?

- A. 6
- B. 7
- C. 8
- D. 9
- E. 10

Q12. Line J has a slope of 3. Line K is perpendicular to Line J .

Quantity A	Quantity B
The slope of Line K	$-1/3$

- A. Quantity A is greater.
- B. Quantity B is greater.

C. The two quantities are equal.

D. The relationship cannot be determined from the information given.

Q13. How many integers between 20 and 50 are divisible by 3 but not by 2?

A. 4

B. 5

C. 6

D. 8

E. 10

Q14. If $h(x) = |2x - 10|$, for what value of x is $h(x) = 0$?

A. 0

B. 2

C. 5

D. 10

E. 20

Q15. In a club of 40 members, 25 like coffee, 15 like tea, and 10 like both. How many members like neither coffee nor tea?

Solutions - Verbal Reasoning Section I

1. (A) The sentence describes a treatise that is "notoriously" difficult, making even experts struggle with "dense, jargon-heavy arguments." "Recondite" means obscure or little known, perfectly describing a text that is nearly impossible to decipher.
2. (A) The word "surprising" indicates a contrast between the artist's reputation and his actual behavior. Since he is actually "gracious and charming," his reputation for "disdaining all social conventions" suggests he is seen as a "misanthrope" (someone who avoids or dislikes human society).
3. (A) For blank (i), "characterized" establishes the nature of her prose. For blank (ii), "economy" refers to the frugal or careful use of words. In a GRE context, "economy of prose" is the standard phrase for effective brevity.
4. (B) For blank (i), the "while" signals a contrast. If critics previously "derided" (ridiculed) the work as noise, modern listeners have now realized the work actually has an "intricate" (complex and detailed) structure.
5. (B) The passage clarifies that the Luddites were not simply anti-technology. Instead, their protests were a "response to the erosion of traditional labor rights." They were fighting against the way machinery was being used to bypass existing labor laws and lower wages.
6. (A) Within the context of the Luddite movement, machine breaking was a tactical form of "collective bargaining by riot." It was intended to "force factory owners to negotiate" for better pay and working conditions.
7. (A) By mentioning that the government made breaking machines a "capital offense" (punishable by death), the author is "illustrating the government's severe and protective stance" toward the wealthy industrial owners over the working class.
8. (A) In Sentence Equivalence, the words must create synonyms. An apology issued only because of legal pressure and stock loss is not genuine. "Spurious" and "disingenuous" both describe something that is not sincere or is based on false pretenses.
9. (A) The "yet" indicates a contrast with "actually teems with life." To the "untrained eye," the desert looks empty. "Desolate" and "stark" both describe a landscape that is bare, empty, and harsh.
10. (C) The company's goal was to increase "office presence." While employees stayed for lunch, they left earlier. Choice (C) provides a logical physiological reason: "heavy meals caused a mid-afternoon drop in energy," making employees less productive or eager to finish work at home.
11. (A) While "effect" is usually a noun, it can be a verb meaning "to bring about" or "to accomplish." Choice (A) correctly uses it to mean the manager wants to bring about changes.
12. (B) In this context, "calculated" does not refer to math. It refers to something "deliberate and planned" to achieve a specific effect—in this case, the witness is using silence strategically.

Solutions - Verbal Reasoning Section II

1. (A) For blank (i), "imminent" means about to happen. For blank (ii), a "lackadaisical" (careless/lazy) response from leaders results in activists feeling blank (iii) "despondent" (losing hope).
2. (A) The contrast "but" indicates a shift. While the infrastructure was "decaying," the "substantial" (large/significant) amount of aid allowed for a total overhaul.
3. (A) To voters, the promises seemed "sincere." However, opponents argued they were "opportunistic"—taking advantage of circumstances for personal gain without regard for principles.
4. (A) If a species is "resilient" (able to withstand or recover from difficult conditions), its survival only becomes unlikely when there is "systematic" (done according to a fixed plan) destruction of its habitat.
5. (B) Making decisions that benefit "one's own family" in a professional capacity is the definition of "nepotism."
6. (A) If a report leaves "no room for doubt," it is "unequivocal," meaning leaving no doubt; unambiguous.
7. (B) The primary biological danger of invasive species in a new ecosystem is that they "lack natural predators" that would normally keep their population numbers in check.
8. (A) The author uses the Brown Tree Snake as a "case study" (a specific example used to illustrate a broader point) to show how an invasive species can destroy native bird populations.
9. (A) "Homogenization" refers to things becoming the same. In a biosphere, this means regional ecosystems lose their uniqueness and "become increasingly similar" due to invasive species and human activity.
10. (B) The conclusion is that spicy food causes longevity. However, if these people eat "fresh fruit" (which also causes longevity), the fruit is a confounding variable. This "undermines" the link to spicy food by providing an alternative cause.
11. (A) Someone who can "settle disputes without causing loss of face" is skillful and sophisticated. "Suave" and "urbane" are synonyms for being smooth, polite, and sophisticated in social situations.
12. (A) If there is "no doubt" about how to assemble the machine, the instructions are "explicit" and "lucid," both meaning very clear and easy to understand.
13. (A) A tax that is a "heavy burden" on the poor is "onerous" and "burdensome," both of which mean involving an amount of effort or difficulty that is oppressively burdensome.
14. (A) A stream so clear that you can "see every pebble" is "limpid" and "pellucid," both of which mean translucently clear.

15. (A) A speech designed to "stir up emotions" rather than reason is "inflammatory" and "incendiary," both of which mean tending to arouse passion or anger.

Solutions - Quantitative Reasoning Section I

1. (B) Let cost be 100. Retail price (50% markup) $\rightarrow$ 150. Seasonal discount (50% of 150): $150 - 75 = 75$. Since $75 < 100$, Quantity B is greater.
2. (1) Let the integers be $n, n + 1, n + 2, n + 3$. Sum: $4n + 6 = 10 \Rightarrow 4n = 4 \Rightarrow n = 1$. The smallest integer is 1.
3. (B) Quantity A: Circumference $= 2\pi(4) = 8\pi \approx 25.12$. Quantity B: Perimeter $= 4(7) = 28$. Since $28 > 25.12$, Quantity B is greater.
4. (B) For any value $0 < x < 1$, the square of the number is smaller than the number, and the square root is larger than the number ($x^2 < x < \sqrt{x}$). Thus, Quantity B is greater.
5. (21) $\frac{x}{4} = 11 - 5 \Rightarrow \frac{x}{4} = 6 \Rightarrow x = 24$. Then, $x - 3 = 24 - 3 = 21$.
6. (45) The multiples are 3, 6, 9, 12, 15. Sum: $3 + 6 + 9 + 12 + 15 = 45$.
7. (2/5) Prime numbers between 1 and 20 are 2, 3, 5, 7, 11, 13, 17, 19. There are 8 primes. Probability $= 8/20 = 2/5$.
8. (42) Area $= 0.5 \times \text{base} \times \text{height} = 0.5 \times 14 \times 6 = 42$.
9. (A, B, C) A multiple of 2 and 5 is a multiple of 10. (A) True by definition. (B) If $n = 10k$, $n^2 = 100k^2$, which is a multiple of 100. (C) $n + 10$ is (multiple of 10 + 10), which remains a multiple of 10.
10. 20 Rate $= 120 \text{ gallons}/60 \text{ minutes} = 2 \text{ gallons/minute}$. Time to fill 40 gallons $= 40/2 = 20 \text{ minutes}$.
11. (16) $5^{n-1} = 125 \Rightarrow 5^{n-1} = 5^3 \Rightarrow n - 1 = 3 \Rightarrow n = 4$. Then $n^2 = 16$.
12. 20 Average $= \text{Sum}/\text{Count} = 160/8 = 20$.

Solutions - Quantitative Reasoning Section II

1. **(A)** For positive values, the reciprocal of the smaller number is always greater than the reciprocal of the larger number. Since $x < y$, $1/x > 1/y$.
2. **(D)** Primes between 10 and 20 are 11, 13, 17, 19. If p is 11 or 13, Quantity B is greater. If p is 17 or 19, Quantity A is greater. The relationship cannot be determined.
3. **(B)** Set B contains more values that are further from the mean than Set A, resulting in a larger spread. Thus, the standard deviation of Set B is greater.
4. **(25%)** Profit = $100 - 80 = 20$. Percent profit based on cost = $(20/80) \times 100 = 25\%$.
5. **(1.2)** Combined rate = $1/2 + 1/3 = 5/6$ jobs/hr. Time = $1/(5/6) = 6/5 = 1.2$ hours.
6. **(28.6%)** 2019 Total = $5k + 2k = 7k$. 2020 Total = $6k + 3k = 9k$. % Increase = $(9 - 7)/7 = 2/7 \approx 28.6\%$.
7. **(50.0%)** In 2021, Product A = 4500 and Product B = 4500. Total = 9000. Product B percentage = $4500/9000 = 50\%$.
8. **5875** Average Product A = $(5000 + 6000 + 4500 + 8000)/4 = 23500/4 = 5875$.
9. **(10)** Diagonal $d = \sqrt{L^2 + W^2} = \sqrt{8^2 + 6^2} = \sqrt{64 + 36} = 10$.
10. **5** $\frac{(5x^4)^2}{5x^5} = \frac{25x^8}{5x^5} = 5x^3$. The coefficient m is 5.
11. **(9)** Let A be apples and O be oranges. $A + O = 15$ and $0.6A + 0.4O = 7.8$. Substitute $O = 15 - A$: $0.6A + 0.4(15 - A) = 7.8 \Rightarrow 0.2A + 6 = 7.8 \Rightarrow 0.2A = 1.8 \Rightarrow A = 9$.
12. **(C)** The slope of a line perpendicular to a line with slope m is $-1/m$. For Line J ($m = 3$), the slope of Line K is $-1/3$. The quantities are equal.
13. **(5)** Multiples of 3 between 20 and 50 are 21, 24, 27, 30, 33, 36, 39, 42, 45, 48. Those NOT divisible by 2 (odd) are 21, 27, 33, 39, 45. Total count is 5.
14. **(5)** $h(x) = |2x - 10| = 0 \Rightarrow 2x = 10 \Rightarrow x = 5$.
15. **10** Play at least one: Coff + Tea - Both = $25 + 15 - 10 = 30$. Neither = $40 - 30 = 10$.