

# Graduate Management Admission Test (GMAT)

## ANALYTICAL WRITING ASSESSMENT

### I. Analysis of an Issue. Time: 30 minutes

**Directions:** In this section you will have 30 minutes to analyze and explain your views on the topic presented below. Read the statement and directions carefully. Write only on the topic given. An essay on a topic other than the one assigned will automatically be assigned a grade of 0.

**Note:** On the CAT version, you will keyboard your essay. For this exercise, allow yourself three sides of regular 8.5 x 11 inch paper for each essay response.

Some people long for the "good old days" when schools emphasized the "three R's" of reading, writing and arithmetic. They maintain that school curriculums today are watered down versions of sounder ones and therefore less effective. Other people defend the curriculum of today's schools, pointing out that students must be exposed to a greater variety of material and to material that is more complex.

Which position do you find more compelling? Explain your position using reasons and/or examples drawn from your personal experience, observations or readings.

### II. Analysis of an Argument. Time: 30 minutes

**Directions:** In this section you will have 30 minutes to write a critique of the argument presented below. Read the argument and directions carefully. Write only on the topic given. An essay on a topic other than the one assigned will automatically be assigned a grade of 0.

**Note:** On the CAT version, you will keyboard your essay. For this exercise, allow yourself three sides of regular 8.5 x 11 inch paper for each essay response.

The rescue squad, which provides ambulance service to a substantial portion of the county, is staffed entirely by volunteers who train and serve for no monetary compensation. The rescue squad receives an annual equipment budget from the county government but has to submit special requests for unusual pieces of equipment. The county should give the rescue squad funds to purchase a defibrillator, an electronic device used to regulate the heartbeat of patients who have suffered a heart attack. With a defibrillator, the rescue squad could ensure that county residents will have an excellent chance of surviving a heart attack.

How persuasive do you find this argument? Explain your point of view by analyzing the line of reasoning and the use of evidence in the argument. Discuss also, what, if anything would make the argument more persuasive or would help you better to evaluate its conclusion.

## **Verbal Section 41 Questions 75 Minutes**

**Directions:** For each of the following questions, blacken the oval next to the correct answer. To simulate the experience of taking the CAT, answer each question in order. Do not skip any questions, and do not go back to any questions you have already answered.

### **For Sentence Correction Questions:**

In questions of this type, either part or all of a sentence is underlined. The sentence is followed by five ways of writing the underlined part. Answer Choice (A), repeats the original; the other choices vary. If you think the original phrasing is the best, choose (A). If you think one of the other answer choices is the best, select that choice.

Sentence correction questions test your ability to recognize correct and effective expression. Follow the requirements of Standard Written English: grammar, choice of words, and sentence construction. Choose the answer that results in the clearest, most exact sentence, but does not change the meaning of the original sentence. Blacken the oval next to your choice.

### **For Critical Reasoning questions:**

Questions of this type ask you to analyze and evaluate the reasoning in short paragraphs or passages. For some questions, all of the answer choices may conceivably be answers to the question asked. You should select the BEST answer to the question, that is, an answer that does not require you to make assumptions that violate common sense standards by being implausible, redundant, irrelevant or inconsistent. After choosing the best answer, blacken the oval next to your choice.

### **For Reading Comprehension questions:**

Each passage is followed by questions or incomplete statements about the passage. Each statement or question is followed by lettered words or expressions. Select the word or expression that most satisfactorily completes each statement or answers each question in accordance with the meaning of the passage. After you have chosen the best answer, blacken the oval next to your choice.

**1. After reading two different poems, she could not decide which poem was the most beautiful, since each had their own unique features**

- (A) she could not decide which poem was the most beautiful, since each had their own
- (B) she could not decide which poem was the more beautiful, since each had their own
- (C) she could not decide which poem was the most beautiful, since each had its own
- (D) she could not decide which poems were the most beautiful, since each had their own
- (E) she could not decide which poem was the more beautiful, since each had its own

**2. The elusive French restaurant has been popular with business customers because of its excellent service, responsive management and because its parking facilities are extensive**

- (A) because of its excellent service, responsive management and because its parking

facilities are extensive

(B) because of its excellent service, responsive management and because their parking facilities are extensive

(C) because of its excellent service, which is excellent, management, which is responsive, and because of parking facilities which are extensive

(D) because of its excellent service, responsive management and extensive parking facilities

(E) because of its excellent service, responsive management, and its extensive parking facilities

**3. Men's interest in developing a cure for cancer have promoted the rapid advances in the field now known as Genetic Engineering**

(A) Men's interest in developing a cure for cancer have promoted

(B) Men's interest in developing a cure for cancer has promoted

(C) That men are interested in developing a cure for cancer have promoted

(D) Interest in developing a cure for cancer has promoted

(E) Man's interest in developing a cure for cancer has promoted

**Questions 4 and 5**

**Roberts is accused of a crime and Edwards is the prosecution's key witness**

**I. Roberts can be convicted on the basis of Edwards' testimony against him**

**II. Edwards' testimony would show that Edwards himself participated in Roberts' wrongdoing**

**III. The crime of which Roberts is accused can only be committed by a person acting alone**

**IV. If the jury learns that Edwards himself committed some wrong, they will refuse to believe any part of his testimony**

**4. If propositions I, II and III are assumed to be true and IV false, which of the following best describes the outcome of the trial?**

(A) Both Edwards and Roberts will be convicted of the crime of which Roberts is accused

(B) Both Edwards and Roberts will be convicted of other crime other than the one with which Roberts is already charged

(C) Roberts will be convicted while Edwards will not be convicted

(D) Roberts will not be convicted

(E) Roberts will testify against Edwards

**5. If all four propositions are taken as a group, it can be pointed out that the scenario they describe is**

(A) A typical situation for a prosecutor

(B) impossible because the propositions are logically inconsistent

(C) unfair to Edwards, who may have to incriminate himself

(D) unfair to Roberts, who may be convicted of the crime

(E) one which Roberts' attorney has created

**6. Delegates to the Republican Party convention chose their candidate and was able to ratify all aspects of his campaign platform at the convention in Denver.**

- (A) chose their candidate and was able
- (B) chose their candidate and were able
- (C) chose its candidate and were able
- (D) chose its candidate and was able
- (E) had chosen their candidate and was able

### **Questions 7 and 8**

There is a curious, though nonetheless obvious contradiction in the suggestion that one person ought to give up his life to save the life of one other person who is not a more valuable member of the community. It is true that we glorify the sacrifice of the individual who throws herself in from of the attacker's bullets saving the life of her lover at the cost of her own. But here is the **---(7)---**: Her life is as important as his. Nothing is gained in the transaction; not from the community's viewpoint, for one life was exchanged for another equally as important, not from the heroine's viewpoint, for she is **----(8)----**; and not from the rescued lover's perspective, for he would willingly have exchanged places.

**7.**

- (A) beauty of human love
- (B) tragedy of life
- (C) inevitability of death
- (D) defining characteristic of human existence
- (E) paradox of self-sacrifice

**8.**

- (A) dying
- (B) in love
- (C) dead
- (D) a heroine
- (E) a faithful companion

**9. For the reason that the university's senior tenured faculty is still quite young and therefore many years away from retirement, it seems unlikely that the junior faculty will be able to easily achieve tenure in the foreseeable future.**

- (A) For the reason that
- (B) Because
- (C) Being that
- (D) On account of
- (E) In that

**10. Just as William Shakespeare was the preeminent poet of England, so Robert Frost was the preeminent poet of the United States**

- (A) Just like William Shakespeare was the preeminent poet of England, so Robert Frost
- (B) Just as William Shakespeare was the preeminent poet of England, so Robert Frost

- (C) As William Shakespeare was the preeminent poet of England, Robert Frost
- (D) Just as England's preeminent poet was William Shakespeare, Robert Frost
- (E) As William Shakespeare was the preeminent poet of England, in the same manner Robert Frost

**11. Jonas Salk, an American physician whose careful studies demonstrated a means of providing lasting immunity to polio**

- (A) Jonas Salk, an American physician whose careful studies demonstrated a means of providing lasting immunity to polio
- (B) Providing lasting immunity to polio was demonstrated by Jonas Salk, an American physician with careful studies
- (C) Jonas Salk was an American physician who had careful studies demonstrated a means of providing lasting immunity to polio
- (D) Jonas Salk was an American physician whose careful studies demonstrated a means of providing lasting immunity to polio
- (E) Jonas Salk, whose careful studies demonstrated a means of providing lasting immunity to polio, an American physician

**Questions 12 – 18**

In the art of the Middle Ages, we never encounter the personality of the artist as an individual; rather it is diffused through the artistic genius of centuries embodied in the rules of religious art. Art of the Middle Ages is first a sacred script, the symbols and meanings of which were well settled. The circular halo placed vertically behind the head sanctifies sainthood, while the halo impressed with a cross signifies divinity. By bare feet, we recognize God, the angels, Jesus Christ and the apostles, but for an artist to have depicted the Virgin Mary with bare feet would have been tantamount to heresy. Several concentric, wavy lines represent the sky, while parallel lines water or the sea. A tree, which is to say a single stalk with two or three stylized leaves, informs us that the scene is laid on earth. A tower with a window indicates a village, and should an angel be watching from the battlements, the city is thereby identified as Jerusalem. Saint Peter is always depicted with curly hair, a short beard, and a tonsure, while Saint Paul has always a bald head and a long beard.

A second characteristic of this iconography is obedience to a sacred mathematics. "The Divine Wisdom" wrote Saint Augustine, "reveals itself everywhere in numbers", a doctrine attributable to the neo-Platonists who revived the genius of Pythagoras. Twelve is the master number of the Church and is the product of three, the number of the Trinity, and four, and the number of material elements. The number seven, the most mysterious of all numbers, is the sum of four and three. There are seven ages of man, seven virtues, seven planets. In the final analysis, the seven-tone scale of Gregorian music is the sensible embodiment of the order of the universe. Numbers also require a symmetry. At Chartes, a stained glass window shows the four prophets, Isaiah, Ezekiel, Daniel and Jeremiah, carrying on their shoulders the four evangelists, Matthew, Mark, Luke and John.

A third characteristic of this art is to be a symbolic language, showing us one thing and inviting us in to see another. In this respect, the artist was called upon to imitate God,

who had hidden a profound meaning behind the literal and wished nature itself to be a moral lesson to man. Thus, every painting is an allegory. In a scene of the final judgment, we see the foolish virgins at the left hand of Jesus and the wise at his right, and we understand that this symbolizes those who are lost and those who are saved. Even seemingly insignificant details carry hidden meaning: The lion in a stained glass window is the figure of the Resurrection.

These, then, are the defining characteristics of the art of the Middle Ages, a system within which even the most mediocre talent was elevated by the genius of the centuries. The artists of the early Renaissance broke the tradition at their own peril. When they are not outstanding, they are scarcely able to avoid insignificance and banality in their religious works, and, even when they are great, they are no more than the equals of the old masters who passively followed the sacred rules.

**12. The primary purpose of the passage is to**

- (A) theorize about the immediate influences on art of the Middle Ages
- (B) explain why artists of the Middle Ages followed the rules of a sacred script
- (C) discuss some of the important features of art of the Middle Ages
- (D) contrast the art of the Middle Ages with that of the Renaissance
- (E) explain with the Middle Ages has a passion for order and numbers

**13. It can be inferred that a painting done in the Middle Ages is most likely to contain**

- (A) elements representing the numbers three and four
- (B) a moral lesson hidden behind the literal figures
- (C) highly stylized buildings and trees
- (D) figures with halos and bare feet
- (E) a signature of the artist and the date of execution

**14. Which of the following best describes the attitude of the author toward the art of the Middle Ages?**

- (A) The author understands and admires it
- (B) The author regards it as the greatest art of all time
- (C) The author prefers the music of the period to the art
- (D) The author realizes the constraints placed on the artist and is disappointed that individuality is never evident
- (E) The author regards it generally as inferior to the works produced during the period preceding it

**15. The author refers to Saint Augustine in order to**

- (A) refute a possible objection
- (B) ridicule a position
- (C) present a suggestive analogy

- (D) avoid a contradiction
- (E) provide proof by illustration

**16. All of the following are mentioned in the passage as elements of the sacred script EXCEPT**

- (A) abstract symbols such as lines to represent physical features
- (B) symbols such as halos and crosses
- (C) clothing used to characterize individuals
- (D) symmetrical juxtaposition of figures
- (E) use of figures to identify locations

**17. The passage would most likely be found in a**

- (A) sociological analysis of the Middle Ages
- (B) treatise on the influence of the Church in the Middle Ages
- (C) scholarly analysis of art in the Middle Ages
- (D) preface to a biography of Saint Augustine
- (E) pamphlet discussing religious beliefs

**18. By the phrase "diffused through the artistic genius of centuries", the author most likely means**

- (A) the individual artists of the Middle Ages did not have serious talent
- (B) great works of art from the Middle Ages have survived until now
- (C) an artist who faithfully follows the rules of religious art was not recognized during his lifetime
- (D) the rules of religious art, developed over time, left little freedom for the artist
- (E) religious art has greater value than the secular art of the Renaissance

**19. There are no lower bus fares from Salem to Warren than those of Fast Bus Line.**

**Which of the following is logically inconsistent with the above advertising claim?**

- I. Long Lines Airways has a Salem to Warren fare that is only one-half that charged by Fast.
  - II. Rapid Transit Bus Company charges the same fare for a bus from Salem
  - III. Cherokee Bus Corporation has a lower fare from Warren to Boston than does Fast.
- (A) I only
  - (B) II only
  - (C) I and II only
  - (D) I, II and III
  - (E) none of the statements is inconsistent

**20. It is well-documented fact that for all teenage couples who marry, the marriages of those who do not have children in the first year of their marriage survive more than twice as long as the marriages of those teenage couples in which the wife does give birth within the first 12 months of marriage. Therefore, many divorces could be avoided if teenagers who marry were encouraged to seek counseling on birth control as soon after marriage as possible.**

**The evidence regarding teenage marriages supports the author's conclusion only if**

- (A) in those couples to which a child was born within the first 12 months, there is not a significant number in which the wife was pregnant at the time of marriage
- (B) the children born during the first year of marriage to those divorcing couples lived with the teenage couple
- (C) the child born into such a marriage did not die at birth
- (D) society actually has an interest in determining whether or not people should be divorced if there are not children involved
- (E) encouraging people to stay married when they do not plan to have any children is a good idea

**21. Clarence: Mary is one of the most important executives at the Ace Cola Company.**

**Peter: How can that be? I know for a fact that Mary drinks only Jolt Cola.**

**Peter's statement implies that**

- (A) Jolt Cola is a subsidiary of Ace Cola
- (B) Mary is an unimportant employee of Jolt Cola
- (C) all cola drinks taste pretty much alike
- (D) an executive uses only that company's products
- (E) Jolt is a better-tasting cola than Ace

**22. The selection in the free-agent draft was based less on the player's availability and more on his willingness to accept a low salary.**

- (A) and more on
- (B) than
- (C) but more on
- (D) as on
- (E) than on

**23. The winding roads of Austin were less in number than Dallas**

- (A) were less in number than Dallas
- (B) were less in number than those of Dallas

- (C) were fewer in number than that of Dallas
- (D) were fewer in number than those of Dallas
- (E) were less than Dallas

**24. The nurse told me that the doctor's office closes at 5:00 pm**

- (A) The nurse told me that the doctor's office closes at 5:00 pm
- (B) The nurse told me that the doctor's office closed at 5:00 pm
- (C) The nurse had told me that the doctor's office had closed at 5:00 pm
- (D) The nurse told me that the doctor's office closes at 5:00 pm
- (E) The nurse told me that the doctor's office would have to close at 5:00 pm

**25. Erica: Participation in intramural competitive sports teaches students the importance of teamwork, for no one wants to let teammates down.**

**Nick: This is not correct. The real reason students play hard is such that programs place a premium on winning and no one wants to be a member of a losing team.**

**Which of the following comments can most reasonably be made about the exchange between Erica and Nick?**

- (A) If fewer and fewer schools are sponsoring intramural sports programs now than a decade ago, Erica's position is undermined
- (B) If high schools and universities provide financial assistance for the purchase of sports equipment, Nick's assertion about the importance of winning is weakened
- (C) If teamwork was essential to success in intramural competitive sports, Erica's position and Nick's position are not necessarily incompatible
- (D) Since the argument is one about motivation, it should be possible to resolve the issue by taking a survey of deans at schools that have intramural sports programs
- (E) Since the question raised is about hidden psychological states, it is impossible to answer it

**26. Cory must have known that his sister Janet and not the governess pulled the trigger, but he silently stood by while the jury convicted the governess. Any person of clear conscience would have felt terrible for not having come forward with the information about his sister, and Cory lived with that information until his death 30 years later. Since he was an extremely happy man, however, I conclude that he must have helped Janet commit the crime. Which of the following assumptions must underlie the author's conclusion of the last sentence?**

- (A) Loyalty to members of one's family is conducive to contentment
- (B) Servants are not to be treated with the same respect as members of the family
- (C) Cory never had a bad conscience over his silence because he was also guilty of the crime

- (D) It is better to be a virtuous man than a happy one
- (E) It is actually better to be content in life than to behave morally toward one's fellow human beings

**27. Current motion pictures give children a distorted view of the world. Animated features depict animals as loyal friends, compassionate creatures, and tender souls, while "spaghetti Westerns" portrays men and women as deceitful and treacherous, cruel and wanton, hard and uncaring. Thus, children are taught to value animals more highly than other human beings.**

Which of the following, if true, would weaken the author's conclusion?

- I. Children are not allowed to watch "spaghetti Westerns"
- II. The producers of animated features do not want children to regard animals as higher than human beings
- III. Ancient fables, such as Androcles and the Lion, tell stories of the cooperation between animals and humans, and they usually end with a moral about human virtue

- (A) I only
- (B) II only
- (C) I and II only
- (D) III only
- (E) I, II and III

### **Questions 28 – 34**

The most damning thing that can be said about the world's best-endowed and richest country is that it is not only the leader in health status, but that it is so low in the ranks of the nations. The United States ranks 18th among nations of the world in male life expectancy at birth, 9th in female life expectancy at birth, and 12th in infant mortality. More importantly, huge variations are evident in health status in the United States from one place to the next and from one group to the next.

The forces that affect health care can be aggregated into four groupings that lend themselves to analysis of all health problems. Clearly the largest aggregate of forces resides in the person's environment. His own behavior, in part derived from his experiences with his environment, is the next greatest force affecting his health. Medical care services, treated as separate from other environmental factors because of the special interest we have in them, make a modest contribution to health status. Finally, the contributions of heredity to health are difficult to judge. We are tempted at conception as to our basic weaknesses and strengths, but many hereditary attributes never become manifest because of environmental and behavioral forces that act before the genetic forces come to maturity and other hereditary attributes are increasingly being palliated by medical care.

No other country spends what we do per capita for medical care. The care available is among the best technically, even if used too lavishly and thus dangerously, but none of the countries which stand above us in health status have such a high proportion of medically disenfranchised persons. Given the evidence that medical care is good and that access to care not that bad, it seems most unlikely that our bad showing is caused by the significant proportion are poorly served. Other hypotheses have greater explanatory power: excessive poverty, both actual and relative, and excessive affluence.

Excessive poverty is probably more prevalent in the United States than in any of the countries that have a better infant mortality rate and female life expectancy at birth. This is probably true also for all but four or five of the countries with a longer male life expectancy. In the notable poor countries that exceed us in male survival, difficult living conditions are a more accepted way of life and, in several of them, a good basic diet, basic medical care, basic education and lifelong employment opportunities is an everyday fact of life. In the United States a national unemployment level of 10% may be 40% in the ghetto, while less than 4% elsewhere. The countries that have surpassed us in health do not have such severe or entrenched problems. Nor are such a high proportion of their people involved in them.

Excessive affluence is not so obvious a cause of ill health, but, at least until recently, few other nations could afford such unhealthful ways of living. Excessive intake of animal protein and fats, dangerous imbibing of alcohol, use of tobacco and drugs (prescribed and proscribed), and dangerous recreational sports and driving habits are all possible only because of affluence. Our heritage, desires, opportunities and our macho, combined with the relatively low cost of bad foods and speedy vehicles make us particularly vulnerable to our affluence. And those who are not affluent try harder. Our unacceptable health status, then, will not be improved appreciably by expanded medical resources nor by the redistribution so much as a general attempt to improve the quality of life for all.

**28. Which of the following would be the most logical continuation of the passage?**

- (A) Suggestions for specific proposals to improve the quality of life in America
- (B) A listing of the most common causes of death among male and female adults
- (C) An explanation of the causes of poverty in America, both absolute and relative
- (D) A proposal to ensure that residents of central cities receive more and better medical care
- (E) A study of the overcrowding in urban hospitals serving primarily the poor

**29. All of the following are mentioned in the passage as factors affecting the health of the population EXCEPT**

- (A) the availability of medical care services
- (B) the genetic endowment of individuals

- (C) overall environmental factors
- (D) the nation's relative position in health status
- (E) an individual's own behavior

**30. The author is primarily concerned with**

- (A) condemning the United States for its failure to provide better medical care to the poor
- (B) evaluating the relative significance of factors contributing to the poor health status in the United States
- (C) providing information which the reader can use to improve his or her own personal health
- (D) comparing the general health of the US with world averages
- (E) advocating specific measures designed to improve the health of the US population

**31. The passage best supports which of the following conclusions about the relationship between per capita expenditures for medical care and the health of a population?**

- (A) The per capital expenditure for medical care has relatively little effect on the total amount of medical care available to a population
- (B) The genetic makeup of a population is a more powerful determinant of the health of a population than the per capita expenditure for medical care
- (C) A population may have a very high per capital expenditure for medical care and yet have a lower health care status than other populations with lower per capita expenditures
- (D) The higher the per capita expenditure on medical care, the more advanced is the medical technology; the more advanced the technology, the better is the health of the population
- (E) Per capita outlays for medical care devoted to adults are likely to have a greater effect on the status of the population than outlays devoted to infants

**32. The author refers to the excessive intake of alcohol and tobacco and drug use in order to**

- (A) show that some health problems cannot be attacked by better medical care
- (B) demonstrate that use of tobacco and intoxicants is detrimental to health
- (C) cite examples of individual behavior which have adverse consequence for health status
- (D) refute the contention that poor health is related to access to medical care
- (E) illustrate ways in which affluence may contribute to poor health status

**33. The passage provides information to answer which of the following questions?**

- (A) What is the most powerful influence in the health status of a population?
- (B) Which nation in the world leads in health status?
- (C) Is the life expectancy of males in the United States longer than that of females?
- (D) What are the most important genetic factors influencing the health of an individual?
- (E) How can the United States reduce the incidence of unemployment in the ghetto?

**34. In discussing the forces which influence health, the author implies that medical care services are**

- (A) the least important of all
- (B) a special aspect of the individual's environment
- (C) a function of an individual's behavior pattern
- (D) becoming less important as technology improves
- (E) too expensive for most people

**35. There is something irrational about our system of laws. The criminal law punishes a person more severely for having successfully committed a crime than it does a person who fails in his attempt to commit the same crime - even though the same evil intention is present in both cases. But under the civil law a person who attempts to defraud his victim but is unsuccessful is not required to pay damages.**

**Which of the following, if true, would most weaken the author's argument?**

- (A) Most people who are imprisoned for crimes would commit another crime if they are ever released from prison
- (B) A person is morally culpable for his evil thoughts as well as for his evil deeds
- (C) There are more criminal laws on the books than there are civil laws on the books
- (D) A criminal trial is significantly more costly to the state than a civil trial
- (E) The goal of the criminal trial is to punish the criminal, but the goal of the civil law is to compensate the victim

**36. In his most recent speech, my opponent, Governor Clark, accused me of having distorted the facts, misrepresenting his own position, suppressing information and deliberately lying to the people.**

Which of the following possible responses by this speaker would be LEAST relevant to his dispute with Governor Clark?

- (A) Governor Clark would not have begun to smear me if he did not sense that his own campaign was in serious trouble
- (B) Governor Clark apparently misunderstood my characterization of his position, so will attempt to state more clearly my understanding of it

- (C) At the time I made those remarks, certain key factors were not available, but new information uncovered by my staff does support the position I took at that time
- (D) I can only wish Governor Clark had specified those points he considered to be lies so that I could have responded to them now
- (E) With regard to the allegedly distorted facts, the source of my information is a Department of Health publication entitled "Safe Eating"

**37. It has been shown through extensive physical and statistical testing that domestic cars accelerate like foreign cars do.**

- (A) Accelerate like foreign cars do
- (B) can accelerate like foreign cars do
- (C) accelerate as foreign cars
- (D) accelerate as foreign cars do
- (E) will accelerate as foreign cars

**38. Results of the recent study make it mandatory that the scientist rejects implementation of the experimental procedure.**

- (A) rejects
- (B) should reject
- (C) reject
- (D) must reject
- (E) will reject

**39. Politicians are primarily concerned with their own survival; artists are concerned with revealing truth. Of course, the difference in their reactions is readily predictable. For example, while the government leaders wrote laws to ensure the triumph of industrialization in Western Europe, artists painted, wrote about, and composed music in response to the horrible conditions created by the Industrial Revolution. Only later did political leaders come to see what the artists had immediately perceived, and then only through a glass darkly. Experience teaches us that -----.**

- (A) artistic vision perceives in advance of political practice
- (B) artists are utopian by nature while governmental leaders are practical
- (C) throughout history political leaders have not been very responsive to the needs of their people
- (D) the world would be a much better place to live if only artists would become kings
- (E) history is the best judge of the progress of civilization

**40. A parent must be constant and even-handed in the imposition of burdens and punishments and distribution of liberties and rewards. In good times, a parent who too quickly bestows awards creates an expectation of future rewards that he may be unable to fulfill during bad times. In bad times, a parent who waits too long to impose the punishment gives the impression that his response was forced, and the child may interpret this as -----.**

- (A) a signal from his parent that the parent is no longer interested in the child's welfare
- (B) a sign of weakness in the parent that he can exploit
- (C) indicating a willingness on the part of the parent to bargain away liberties in exchange for the child's assuming some new responsibilities
- (D) an open invitation to retaliate
- (E) a symbol of his becoming an adult

**41. Fidel Castro found it simple to seize power, but maintaining it difficult.**

- (A) Maintaining it difficult
- (B) its maintenance difficult
- (C) difficult to maintain it
- (D) difficulty was experienced in maintaining it
- (E) difficult inasmuch as maintaining it was concerned

## **Quantitative Section 37 Questions 75 Minutes**

Directions: For each of the following questions, blacken the oval next to the correct answer. To simulate the experience of taking the CAT, answer each question in order. Do not skip any questions, and do not go back to any questions you have already answered.

Numbers: All numbers used are real numbers.

Figures: The diagrams and figures that accompany these questions are for the purpose of providing information useful in answering the questions. Unless it is stated that a specific figure is not drawn to scale, the diagrams and figures are drawn as accurately as possible. All figures are in a plane unless otherwise indicated.

For Data Sufficiency questions: Each question is followed by two numbered facts. You are to determine whether the data given in the statements are sufficient for answering the question. Use the data given, plus your knowledge of math and everyday facts, to choose between the five possible answers. Blacken the oval next to your choice.

**1. If the average of  $x$ ,  $y$ , and 30 is 10, then the average of  $x$  and  $y$  is**

- (A) 0
- (B) 5
- (C) 7.5
- (D) 10
- (E) 30

**2. All of the 120 seniors in Warren High School are members of the chess club, the pep club or both. If 90 seniors are in the pep club and 70 seniors are in the chess club, how many seniors are in both clubs?**

- (A) 10
- (B) 20
- (C) 30
- (D) 40
- (E) 50

**3. Exactly how many pennies are there in Cara's piggy bank?**

**(1) There are more than 7 pennies in the bank**

**(2) There are fewer than 9 pennies in the bank**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient

- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**4. Jake bought a \$2400 computer on a monthly payment plan. How much money does Jake still owe on the computer?**

**(1) He has made 6 payments**

**(2) He still owes 10 payments of \$150 each**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**5. Does  $x = 15$ ?**

**(1) The average of  $x$ ,  $y$  and  $z$  is 15**

**(2)  $y = -z$**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**6. How far is terminal X from terminal Z?**

**(1) Terminal Y is 5 miles from terminal Z**

**(2) Terminal X is 3 miles from terminal Y**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**7. What was the annual interest earned on a savings account of \$3,000?**

**(1) The rate of interest in the account was 5.25% annual simple interest**

**(2) The account was maintained for 10 days**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**8. Is Sally taller than Jasmine?**

**(1) Sally is taller than Bridget**

**(2) Bridget is shorter than Jasmine**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**9. If  $a$  and  $b$  are positive integers and  $aaabb = 72$ , then  $a+b =$**

- (A) 36
- (B) 17
- (C) 8
- (D) 6
- (E) 5

**10.  $(0.250) / (0.333)$  divided by  $(0.125) / (0.167)$  is most nearly**

- (A) 10
- (B) 5
- (C) 1
- (D) 0.667
- (E) 0.500

**11. Which of the following fractions is closest to 1, given that  $a > b > 1$ ?**

- (A)  $a / b$
- (B)  $(a+2) / (b+2)$
- (C)  $(a+1) / (b+1)$
- (D)  $(a+1) / b$
- (E)  $(a-1) / (b-1)$

**12. In an office with 21 staff members, one-third are men and two-thirds are women. To obtain a staff in which one-quarter are men, how many women should be hired?**

- (A) 7
- (B) 5
- (C) 3
- (D) 2
- (E) 1

**13. In College X, 40 percent of the women and 20 percent of the men are taking classes in math. If 55 percent of the students at College X are women, what percent of all College X students take math classes?**

- (A) 35
- (B) 31
- (C) 30
- (D) 26
- (E) 25

**14. If cylinder A has three times the height and one-third the diameter of cylinder B, what is the ratio of the volume of A to the volume of B?**

- (A) 3:1
- (B) 1:1
- (C) 1:3
- (D) 1:9
- (E) 1:27

**15. What is the 57th number in a series of numbers?**

**(1) Each number in the series is 3 more than the preceding number**

**(2) The tenth number in the series is 29**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not

sufficient

- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**16. A jogger desires to run a certain course in 25% less time than she usually takes; by what percent must she increase her average running speed to accomplish this goal?**

- (A) 20%
- (B) 25%
- (C) 33.3%
- (D) 50%
- (E) 75%

**17. Jacob took a test composed of 125 questions. What percent of all the questions on the test did Jacob answer correctly?**

**(1) He left 20 of the questions blank**

**(2) He answered 53 of the questions correctly**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**18. A clothing manufacturer has determined that she can sell 100 suits a week at a selling price of \$200 each. For each rise of \$4 in the selling price she will sell two less suits each week. If she sells the suits for  $x$  dollars each, how many dollars a week will she receive from sales of the suits?**

- (A)  $\{(x)(x)\} / 2$
- (B)  $200 - (x / 2)$
- (C)  $50x + \{(x)(x) / 4\}$
- (D)  $150x - \{(x)(x) / 4\}$
- (E)  $200x - \{(x)(x) / 2\}$

**19. A magazine costs \$1.00 per copy to produce. If \$20,000 was taken in for advertising in the magazine, how many copies at 75 cents per copy must be sold to make a profit of exactly \$10,000?**

- (A) 10,000
- (B) 20,000
- (C) 25,000
- (D) 35,000
- (E) 40,000

**20. If  $a$  is a positive integer and if the remainders of 4 and 6 are obtained when 89 and 125, respectively, are divided by  $a$ , then  $a =$**

- (A) 7
- (B) 9
- (C) 15
- (D) 17
- (E) 19

**21. A pen and pencil set costs \$12, the same as when the items are bought separately. If the pen costs \$11 more than the pencil, what is the cost of the pencil?**

- (A) \$0.50
- (B) \$1.00
- (C) \$1.50
- (D) \$6.00
- (E) \$11.00

**22. A salesman makes a commission of  $x$  percent on the first \$2,000 worth of sales in any given month and  $y$  percent on all further sales during that month. If he makes \$700 from \$4,000 of sales in October and he makes \$900 from \$5,000 of sales in November, what is the value of  $x$ ?**

- (A) 2%
- (B) 5%
- (C) 10%
- (D) 15%
- (E) 20%

**23. What percent of the selling price of item X was profit?**

- (1) The profit was \$20 less than the selling price of item X
- (2) The cost of the item was 75% of the selling price

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**24. If  $a$  is a positive integer, what is the value of 75 percent of  $(b/a)$ ?**

**(1)  $a = 2$**

**(2)  $b = 4a$**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**25. What are the chances that a die will come up six on the fifth roll?**

**(1) It is a normal six-sided die which is unbiased and always comes up either one, two, three, four, five or six**

**(2) The first four rolls came up six**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**26. How old is Zachary now?**

**(1) The product of his age now and his age five years from now is 24**

**(2) Six years from now he will be three times as old as he is now**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient

- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**27. How many square floor tiles of size  $x$  will it take to cover a rectangular kitchen floor?**

**(1) The width of the kitchen floor is  $10x$**

**(2) The length of the kitchen floor is  $30x$**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**28. If  $(1/x) < (1/y)$ , then**

- (A)  $x > y$
- (B)  $x$  and  $y$  are negative
- (C)  $x$  and  $y$  are positive
- (D)  $x < y$
- (E) none of the above

**29. The price of a left-handed widget increased 20% in August and 10% in December. By approximately what percent would the price after December have to be decreased to restore the price of the widget to its pre-August price?**

- (A) 40%
- (B) 35%
- (C) 30%
- (D) 26%
- (E) 24%

**30. Patrice invested a sum of money at an annual simple interest rate of 10.5%. At the end of four years the amount invested plus interest earned was \$781.00. What was the dollar amount of the original investment?**

- (A) \$231.84
- (B) \$318.16
- (C) \$550.00
- (D) \$750.00
- (E) \$781.84

**31. If a taxicab charges  $x$  cents for the first  $1/9$  mile and  $(x/5)$  cents for each additional  $1/9$  mile or fraction thereof, what is the charge, in cents, for a ride of  $y$  miles, where  $y$  is a whole number?**

- (A)  $x + \{(xy-x) / 45\}$
- (B)  $x - \{(xy-x) / 45\}$
- (C)  $(2x+9y) / 5$
- (D)  $x + \{(9x-y) / 5\}$
- (E)  $x + \{(9xy-x) / 5\}$

**32. The formula for calculating the final velocity of a body, initially at rest, that undergoes a constant acceleration is  $v^2 = 2ad$ ; where  $v$  is the final velocity,  $a$  is the acceleration and  $d$  is the distance traveled. If a body initially at rest is subjected to a constant acceleration of 10 meters per second squared until it reaches a velocity of 20 meters per second, how far, expressed in meters, has the body travelled?**

- (A) 200
- (B) 100
- (C) 40
- (D) 20
- (E) 10

**33. Two mail sorters, P and Q, work at constant rates. If P can sort  $x$  letters in 60 minutes and Q can sort  $x$  letters in 30 minutes, how long will it take (expressed in minutes) for both sorters, working together but independently, to sort  $x$  letters?**

- (A) 45
- (B) 20
- (C) 15
- (D) 10
- (E) 3

**34. If 20 liters of chemical X are added to 80 liters of a mixture that is 10% chemical X and 90% chemical Y, then what percentage of the resulting mixture is chemical X?**

- (A) 15%
- (B) 28%
- (C) 33.3%
- (D) 40%
- (E) 60%

**35. What is the height of a cylindrical condensed milk can with a diameter of 4 inches?**

**(1) The number of cubic inches in the volume of the can is 10 times the radius of the can**

**(2) The can holds 2 pounds of milk**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question

**36. If the ratio of the radii of two circles is 3 to 2, then the ratio of the areas of the two circles is**

- (A) 2 to 3
- (B) 3 to 4
- (C) 4 to 9
- (D) 9 to 4
- (E) 3 to 2

**37. If  $a+b+c=50$ , what is the value of  $a$ ?**

**(1)  $c = 4a - b$**

**(2) The average of  $b$  and  $c$  is  $2a$**

- (A) statement 1 alone is sufficient to answer the question, but statement 2 alone is not sufficient
- (B) statement 2 alone is sufficient to answer the question, but statement 1 alone is not sufficient
- (C) both statements together are needed to answer the question, but neither statement alone is sufficient
- (D) either statement by itself is sufficient to answer the question
- (E) not enough facts are given to answer the question