TCU GMAT Prep Class

Introduction to the GMAT

Overview

- Format
- Scoring
- CAT Format
- Timing Concepts
- Preparation Timeline

Format

- Data Insights
  - 20 questions, 45 minutes
  - Question types
    - Data sufficiency
    - Multi-source reasoning
    - Table analysis
    - Graphics interpretation
    - Two-part analysis
  - Skills – quantitative and verbal

Format

- Quantitative
  - 21 questions, 45 minutes
  - Question formats
    - Problem Solving
  - Skills – arithmetic, algebra
  - No calculator

Format

- Verbal
  - 23 questions, 45 minutes
  - Question formats
    - Critical Reasoning
    - Reading Comprehension
  - Skills – reading comprehension

Format

- Sections in order of your choice
- One 10 Minute Break
- Total Time: just under 2 ½ hours

Format

- Experimental Questions
  - ???
  - Unidentified
  - No impact on score

Scoring: GMAT Focus

- Scores
  - Total score, 205-805 (GMAT guide ≈ ?)
    - Data insights scaled score, 60-90
    - Quantitative scaled score, 60-90
    - Verbal scaled score, 60-90
- Percentile ranking
  - 75^{th} percentile – 605
  - 50^{th} percentile – 546
- Instantaneous scoring

CAT Format

- One question at a time
- Option to review all and change up to three
- A, B, C, D, E… *not!!!*
- Eliminate answers on “note pad”
- Adaptive format
  - Right answer = harder question
  - Wrong answer = easier question
  - This is a GENERAL rule!
- 50% accuracy = scoring level

Timing Concepts

- Pace yourself

  The first ten questions are NOT "more important" than the remaining questions; all questions drive your score!

- Finish each section

  Not completing a section generally results in a lower score than random guessing on the remaining questions!

Preparation Timeline

- Four Weeks
  - One practice test
  - 50-100 questions each week (8-10 hours/wk)
- Eight Weeks
  - Two practice tests
  - 50-75 questions each week (8-10 hours/wk)
- Time allocation
  - Strengths: 30-40% of your time
  - Weaknesses: 60-70% of your time

Critical Reasoning

Overview

- Structure of Arguments
- Question Types
- Strategy
- Practice Questions

Structure of Arguments

- Conclusion
- Evidence
- Assumptions

Question Types

- Assumption
- Strengthen/weaken the argument
- Additional information
- Role play
- Complete the passage

Strategy

- Read the question FIRST!
- Read the passage
- Predict an answer
- Eliminate answers on note pad
  - Out of scope
  - Opposite
- Select an answer

Practice Questions

Question 47, p. 516

Installing scrubbers in smokestacks and switching to cleaner-burning fuel are the two methods available to Northern Power for reducing harmful emissions from its plants. Scrubbers will reduce harmful emissions more than cleaner-burning fuels will. Therefore, by installing scrubbers, Northern Power will be doing the most that can be done to reduce harmful emissions from its plants.

Which of the following is an assumption on which the argument depends?

(A) Switching to cleaner-burning fuel will not be more expensive than installing scrubbers.

(B) Northern Power can choose from among various kinds of scrubbers, some of which are more effective than others.

(C) Northern Power is not necessarily committed to reducing harmful emissions from its plants.

(D) Harmful emissions from Northern Power's plants cannot be reduced more by using both methods together than by the installation of scrubbers alone.

(E) Aside from harmful emissions from the smokestacks of its plants, the activities of Northern Power do not cause significant air pollution.

Question 47, Page 516

Question type:

Assumption

Conclusion:

Scrubbers are the most that NP can do

Evidence:

Scrubbers are more effective than fuels

Question 47, Page 516

Assumption:

THAT is the question!!!

Prediction:

Scrubbers provide full benefit/no disadvantage

Select an answer:

(D)

Question 36, p. 512

Crowding on Mooreville's subway frequently leads to delays, because it is difficult for passengers to exit from the trains. Subway ridership is projected to increase by 20 percent over the next 10 years. The Mooreville Transit Authority plans to increase the number of daily train trips by only 5 percent over the same period. Officials predict that this increase is sufficient to ensure that the incidence of delays due to crowding does not increase.

Which of the following, if true, provides the strongest grounds for the officials' prediction?

(A) By changing maintenance schedules, the Transit Authority can achieve the 5 percent increase in train trips without purchasing any new subway cars.

(B) The Transit Authority also plans a 5 percent increase in the number of bus trips on routes that connect to subways.

(C) For most commuters who use the subway system, there is no practical alternative public transportation available.

(D) Most of the projected increase in ridership is expected to occur in off-peak hours when trains are now sparsely used.

(E) The 5 percent increase in the number of train trips can be achieved without an equal increase in Transit Authority operational costs.

Question 36, Page 512

Question type:

Strengthen the argument

Conclusion:

Increase is sufficient to prevent more delays

Evidence:

Increases in riders and train trips

Question 36, Page 513

Assumption:

Rider increase will go to existing capacity

Prediction:

New riders will use trains at odd times

Select an answer:

(D)

Question 50, p. 516

Some anthropologists study modern-day societies of foragers in an effort to learn about our ancient ancestors who were also foragers. A flaw in this strategy is that forager societies are extremely varied. Indeed, any forager society with which anthropologists are familiar has had considerable contact with modern, non-forager societies.

Which of the following, if true, would most weaken the criticism made above of the anthropologists' strategy?

(A) All forager societies throughout history have had a number of important features in common that are absent from other types of societies.

(B) Most ancient forager societies either dissolved or made a transition to another way of life.

(C) All anthropologists study one kind or another of modern-day society.

(D) Many anthropologists who study modern-day forager societies do not draw inferences about ancient societies on the basis of their studies.

(E) Even those modern-day forager societies that have not had significant contact with modern societies are importantly different from ancient forager societies.

Question 50, Page 516

Question type:

Weaken the argument

Conclusion:

Strategy is flawed

Evidence:

Contact with non-forager societies

Question 50, Page 516

Assumption:

No important similarities among foragers

Prediction:

Yes important similarities exist

Select an answer:

(A)

Question 56, p. 518

Certain genetically modified strains of maize produce a powerful natural insecticide. The insecticide occurs throughout the plant, including its pollen. Maize pollen is dispersed by the wind and frequently blows onto milkweed plants that grow near maize fields. Caterpillars of monarch butterflies feed exclusively on milkweed leaves. When these caterpillars are fed milkweed leaves dusted with pollen from modified maize plants, they die. Therefore, by using genetically modified maize, farmers put monarch butterflies at risk.

Which of the following would it be most useful to determine in order to evaluate the argument?

(A) Whether the natural insecticide is as effective against maize-eating insects as commercial insecticides typically used on maize are

(B) Whether the pollen of genetically modified maize contains as much insecticide as other parts of these plants

(C) Whether monarch butterfly caterpillars are actively feeding during the part of the growing season when maize is releasing pollen

(D) Whether insects that feed on genetically modified maize plants are likely to be killed by insecticide from the plant's pollen

(E) Whether any maize-eating insects compete with monarch caterpillars for the leaves of milkweed plants growing near maize fields

Question 56, Page 518

Question type:

Additional information

Conclusion:

Farmers put butterflies at risk

Evidence:

Insecticide effects from maize pollen

Question 56, Page 518

Assumption:

Caterpillars eat leaves affected by maize pollen

Prediction:

Do caterpillars eat leaves with maize pollen?

Select an answer:

(C)

Question 82, p. 527

A prominent investor who holds a large stake in the Burton Tool Company has recently claimed that **the company is mismanaged**, citing as evidence the company's failure to slow production in response to a recent rise in its inventory of finished products. It is doubtful whether an investor's sniping at management can ever be anything other than counterproductive, **but in this case it is clearly not justified**. It is true that an increased inventory of finished products often indicates that production is outstripping demand, but in Burton's case it indicates no such thing. Rather, the increase in inventory is entirely attributable to products that have already been assigned to orders received from customers.

In the argument given, the two boldfaced portions play which of the following roles?

(A) The first states the position that the argument as a whole opposes; the second provides evidence to undermine the support for the position being opposed.

(B) The first states the position that the argument as a whole opposes; the second is evidence that has been used to support the position being opposed.

(C) The first states the position that the argument as a whole opposes; the second states the conclusion of the argument as a whole.

(D) The first is evidence that has been used to support a position that the argument as a whole opposes; the second provides information to undermine the force of that evidence.

(E) The first is evidence that has been used to support a position that the argument as a whole opposes; the second states the conclusion of the argument as a whole.

Question 82, Page 527

Question type:

Role play

Conclusion:

The company is NOT mismanaged

Evidence:

Inventory increase relates to existing orders

Question 82, Page 527

Assumption:

Inventory increase = mismanagement

Prediction:

Wrong conclusion/right conclusion

Select an answer:

(C)

Question 72, p. 524

Which of the following most logically completes the argument given below?

People in isolated rain-forest communities tend to live on a largely vegetarian diet, and they eat little salt. Few of them suffer from high blood pressure, and their blood pressure does not tend to increase with age, as is common in industrialized countries. Such people often do develop high blood pressure when they move to cities and adopt high-salt diets. Though suggestive, these facts do not establish salt as the culprit in high blood pressure, however, because _____.

(A) genetic factors could account for the lack of increase of blood pressure with age among such people

(B) people eating high-salt diets and living from birth in cities in industrialized societies generally have a tendency to have high blood pressure

(C) it is possible to have a low-salt diet while living in a city in an industrialized country

(D) there are changes in other aspects of diet when such people move to the city

(E) salt is a necessity for human life, and death can occur when the body loses too much salt

Question 72, Page 524

Question type:

Complete the passage

Conclusion:

Salt not necessarily the cause

Evidence:

From low-salt and vegetarian…
to high-salt and high blood pressure

Question 72, Page 524

(counter) Assumption:

Only adverse lifestyle change is salt

Prediction:

Other lifestyle changes besides salt

Select an answer:

(D)

Reading Comprehension

Overview

- Passage Structure/Content
- Question Types
- Strategy
- Practice Questions

Passage Structure/Content

- Generally 2-4 paragraphs, 4-7 questions
  - Establish paragraph-level understanding
  - Leave the details for later
  - *Note: no line numbers on the exam!*
- Topics
  - Social studies/humanities
  - Science
  - Business
- Formal, technical content

Question Types

- Main idea
- Supporting ideas
- Inference
- Application
- Logical structure
- Style/tone

Strategy – Reading Passage

- Find the main idea; scope and purpose
- Look for structure clues
  - Although, before, despite, except
  - First… second… third….
  - But, in addition, nonetheless, therefore
- Label each paragraph

Strategy – Questions

- General questions; predict from notes
- Detail questions; scan and predict
- Eliminate answers on note pad
  - Out of scope
  - Opposite
  - Mixed terms
- Select an answer

Practice Questions

Questions 18-25, p. 375

In terrestrial environments, gravity places special demands on the cardiovascular systems of animals. Gravitational pressure can cause blood to pool in the lower regions of the body, making it difficult to circulate blood to critical organs such as the brain. Terrestrial snakes, in particular, exhibit adaptations that aid in circulating blood against the force of gravity.

The problem confronting terrestrial snakes is best illustrated by what happens to sea snakes when removed from their supportive medium. Because the vertical pressure gradients within the blood vessels are counteracted by similar pressure gradients in the surrounding water, the distribution of blood throughout the body of sea snakes remains about the same regardless of their orientation in space, provided they remain in the ocean. When removed from the water and tilted at various angles with the head up, however, blood pressure at their midpoint drops significantly, and at brain level falls to zero. That many terrestrial snakes in similar spatial orientations do not experience this kind of circulatory failure suggests that certain adaptations enable them to regulate blood pressure more effectively in those orientations.

Questions 18-25, p. 375 (cont.)

One such adaptation is the closer proximity of the terrestrial snake's heart to its head, which helps to ensure circulation to the brain, regardless of the snake's orientation in space. The heart of sea snakes can be located near the middle of the body, a position that minimizes the work entailed in circulating blood to both extremities. In arboreal snakes, however, which dwell in trees and often assume a vertical posture, the average distance from the heart to the head can be as little as 15 percent of overall body length. Such a location requires that blood circulated to the tail of the snake travel a greater distance back to the heart, a problem solved by another adaptation. When climbing, arboreal snakes often pause momentarily to wiggle their bodies, causing waves of muscle contraction that advance from the lower torso to the head. By compressing the veins and forcing blood forward, these contractions apparently improve the flow of venous blood returning to the heart.

Questions 18-25, Pages 375-378

Paragraph summaries:

P1: terr. snakes/circulation
P2: sea snake contrast
P3: adaptations

Signposts:

In particular, however, one such, however, another

Main idea:

Terr. snakes circulation/adaptation

Question 18

The passage provides information in support of which of the following assertions?

(A) The disadvantages of an adaptation to a particular feature of an environment often outweigh the advantages of such an adaptation.

(B) An organism's reaction to being placed in an environment to which it is not well adapted can sometimes illustrate the problems that have been solved by the adaptations of organisms indigenous to that environment.

(C) The effectiveness of an organism's adaptation to a particular feature of its environment can only be evaluated by examining the effectiveness with which organisms of other species have adapted to a similar feature of a different environment.

(D) Organisms of the same species that inhabit strikingly different environments will often adapt in remarkably similar ways to the few features of those environments that are common.

(E) Different species of organisms living in the same environment will seldom adapt to features of that environment in the same way.

Question 18

Question type:

Application

Paragraph/line reference:

Entire passage

Prediction:

???

Answer:

(B)

Question 19

According to the passage, one reason that the distribution of blood in the sea snake changes little while the creature remains in the ocean is that

(A) the heart of the sea snake tends to be located near the center of its body

(B) pressure gradients in the water surrounding the sea snake counter the effects of vertical pressure gradients within its blood vessels

(C) the sea snake assumes a vertical posture less frequently than do the terrestrial and the arboreal snake

(D) the sea snake often relies on waves of muscle contractions to help move blood from the torso to the head

(E) the force of pressure gradients in the water surrounding the sea snake exceeds that of vertical pressure gradients within its circulatory system

Question 19

Question type:

Supporting ideas

Paragraph/line reference:

P2/L14

Prediction:

Water pressure counteracts vessel pressure

Answer:

(B)

Question 20

It can be inferred from the passage that which of the following is true of species of terrestrial snakes that often need to assume a vertical posture?

(A) They are more likely to be susceptible to circulatory failure in vertical postures than are sea snakes.

(B) Their hearts are less likely to be located at the midpoint of their bodies than is the case with sea snakes.

(C) They cannot counteract the pooling of blood in lower regions of their bodies as effectively as sea snakes can.

(D) The blood pressure at their midpoint decreases significantly when they are tilted with their heads up.

(E) They are unable to rely on muscle contractions to move venous blood from the lower torso to the head.

Question 20

Question type:

Inference

Paragraph/line reference:

P3/L34

Prediction:

Heart close to head

Answer:

(B)

Question 21

The author describes the behavior of the circulatory system of sea snakes when they are removed from the ocean (see lines 17– 20) primarily in order to

(A) illustrate what would occur in the circulatory system of terrestrial snakes without adaptations that enable them to regulate their blood pressure in vertical orientations

(B) explain why arboreal snakes in vertical orientations must rely on muscle contractions to restore blood pressure to the brain

(C) illustrate the effects of circulatory failure on the behavior of arboreal snakes

(D) illustrate the superiority of the circulatory system of the terrestrial snake to that of the sea snake

(E) explain how changes in spatial orientation can adversely affect the circulatory system of snakes with hearts located in relatively close proximity to their heads

Question 21

Question type:

Supporting ideas

Paragraph/line reference:

P2/17-20 (exam uses **bold print***, not line numbers)*

Prediction:

Show importance of adaptations

Answer:

(A)

Question 22

It can be inferred from the passage that which of the following is a true statement about sea snakes?

(A) They frequently rely on waves of muscle contractions from the lower torso to the head to supplement the work of the heart.

(B) They cannot effectively regulate their blood pressure when placed in seawater and tilted at an angle with the head pointed downward.

(C) They are more likely to have a heart located in close proximity to their heads than are arboreal snakes.

(D) They become acutely vulnerable to the effects of gravitational pressure on their circulatory system when they are placed in a terrestrial environment.

(E) Their cardiovascular system is not as complicated as that of arboreal snakes.

Question 22

Question type:

Inference

Paragraph/line reference:

P2

Prediction:

Adapted to water, not to land

Answer:

(D)

Question 23

The author suggests that which of the following is a disadvantage that results from the location of a snake's heart in close proximity to its head?

(A) A decrease in the efficiency with which the snake regulates the flow of blood to the brain

(B) A decrease in the number of orientations in space that a snake can assume without loss of blood flow to the brain

(C) A decrease in blood pressure at the snake's midpoint when it is tilted at various angles with its head up

(D) An increase in the tendency of blood to pool at the snake's head when the snake is tilted at various angles with its head down

(E) An increase in the amount of effort required to distribute blood to and from the snake's tail

Question 23

Question type:

Inference

Paragraph/line reference:

P3/L35

Prediction:

Tail circulation

Answer:

(E)

Question 24

The primary purpose of the third paragraph is to

(A) introduce a topic that is not discussed earlier in the passage

(B) describe a more efficient method of achieving an effect discussed in the previous paragraph

(C) draw a conclusion based on information elaborated in the previous paragraph

(D) discuss two specific examples of phenomena mentioned at the end of the previous paragraph

(E) introduce evidence that undermines a view reported earlier in the passage

Question 24

Question type:

Logical structure

Paragraph/line reference:

P3

Prediction:

Examples of key concept

Answer:

(D)

Question 25

In the passage, the author is primarily concerned with doing which of the following?

(A) Explaining adaptations that enable the terrestrial snake to cope with the effects of gravitational pressure on its circulatory system

(B) Comparing the circulatory system of the sea snake with that of the terrestrial snake

(C) Explaining why the circulatory system of the terrestrial snake is different from that of the sea snake

(D) Pointing out features of the terrestrial snake's cardiovascular system that make it superior to that of the sea snake

(E) Explaining how the sea snake is able to neutralize the effects of gravitational pressure on its circulatory system

Question 25

Question type:

Main idea

Paragraph/line reference:

Entire passage

Prediction:

Terr. snakes circulation/adaptation

Answer:

(A)

Quantitative Reasoning

Overview

- GMAT Math Concepts
- Alternate Methods
- Strategy
- Practice Questions

GMAT Math Concepts

- Learn to “see through” the question
- Avoid partial answers
- Just get STARTED!

Alternate Methods

- Picking Numbers
  - Use when question has relative values
  - Pick numbers appropriate for question
  - Sometimes more than one answer "works"; use the first one

Alternate Methods

- Reverse Engineering
  - Use when answers are values
  - Start with C
  - If result is too large, try A or B; if result is too small, try D or E

Strategy

- Read the entire question
- Translate the question
- Choose your approach; math or alternative?
- After 30 “dead” seconds… guess and go!
- Select an answer

Practice Questions

Practice Questions

Arithmetic

Question 7, Page 153

Question 175, Page 177

Source of sample questions:

GMAC (Graduate Management Admission Council). The Official Guide for GMAT Review 2016 with Online Question Bank and Exclusive Video. Wiley. Kindle Edition.

Question 7, p. 153

Which of the following is the value of $\sqrt{\sqrt[3]{0.000064}}$?

(A) 0.004

(B) 0.008

(C) 0.02

(D) 0.04

(E) 0.2

Question 175, p. 177

At a loading dock, each worker on the night crew loaded 3/4 as many boxes as each worker on the day crew. If the night crew has 4/5 as many workers as the day crew, what fraction of all the boxes loaded by the two crews did the day crew load?

(A) 1/2

(B) 2/5

(C) 3/5

(D) 4/5

(E) 5/8

Practice Questions

Algebra

Question 59, Page 160

Question 162, Page 175

Question 59, p. 160

Pumping alone at their respective constant rates, one inlet pipe fills an empty tank to 1/2 of capacity in 3 hours and a second inlet pipe fills the same empty tank to 2/3 of capacity in 6 hours. How many hours will it take both pipes, pumping simultaneously at their respective constant rates, to fill the empty tank to capacity?

(A) 3.25

(B) 3.6

(C) 4.2

(D) 4.4

(E) 5.5

Question 162, p. 175

At his regular hourly rate, Don had estimated the labor cost of a repair job as $ 336 and he was paid that amount. However, the job took 4 hours longer than he had estimated and, consequently, he earned $ 2 per hour less than his regular hourly rate. What was the time Don had estimated for the job, in hours?

(A) 28

(B) 24

(C) 16

(D) 14

(E) 12

Data Sufficiency

Overview

- Data Sufficiency Concepts
- Eliminating Answers
- Strategy
- Practice Questions

Data Sufficiency Concepts

- Answer choices – memorize!
  - A=1, B=2, C=AND, D=OR, E=NONE
- If you don't like the question… *change it*!
- Look for clues
- Isolation… *forget about it!*
- Focus on sufficiency, not solutions

Eliminating Answers

- If statement 1 is sufficient…

  Eliminate B, C, and E

- If statement 2 is sufficient…

  Eliminate A, C, and E

- If statement 1 is NOT sufficient…

  Eliminate A and D

- If statement 2 is NOT sufficient …

  Eliminate B and D

Strategy

- Analyze the question stem
- Look for clues in the statements
- Isolate each statement
- Eliminate answers
- Combine both statements
- Select an answer

Practice Questions

Practice Questions

Arithmetic

Question 75, Page 283

Question 109, Page 286

Question 75, p. 283

Stores L and M each sell a certain product at a different regular price. If both stores discount their regular price of the product, is the discount price at Store M less than the discount price at Store L?

(1) At Store L the discount price is 10 percent less than the regular price; at Store M the discount price is 15 percent less than the regular price.

(2) At Store L the discount price is $ 5 less than the regular store price; at Store M the discount price is $ 6 less than the regular price.

Question 109, p. 286

In a certain office, 50 percent of the employees are college graduates and 60 percent of the employees are over 40 years old. If 30 percent of those over 40 have master's degrees, how many of the employees over 40 have master's degrees?

(1) Exactly 100 of the employees are college graduates.

(2) Of the employees 40 years old or less, 25 percent have master's degrees.

Practice Questions

Algebra

Question 62, Page 282

Question 63, Page 282

Question 91, Page 285

Question 62, p. 282

How many people are directors of both Company K and Company R?

(1) There were 17 directors present at a joint meeting of the directors of Company K and Company R, and no directors were absent.

(2) Company K has 12 directors and Company R has 8 directors.

Question 63, p. 282

A clothing store acquired an item at a cost of x dollars and sold the item for y dollars. The store's gross profit from the item was what percent of its cost for the item?

(1) $y - x = 20$

(2) $y/x = 5/4$

Question 91, p. 285

In the xy-coordinate plane, is point R equidistant from points (− 3, − 3) and (1, − 3)?

(1) The x-coordinate of point R is − 1.

(2) Point R lies on the line y = − 3.

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