

Text Structure and Purpose

Question 1

Pablo Picasso's 1907 oil painting *Les Femmes d'Alger (O.J.)* is widely considered a pivotal work in the development of Cubism and modern art. The painting depicts five nude female figures with fragmented bodies and mask-like faces, challenging traditional Western ideals of beauty and representation. Art historians note the influence of Iberian sculpture and African masks on Picasso's radical departure from naturalistic depiction. The disjointed perspectives and geometric forms create a sense of tension and confront the viewer directly. This piece marked a significant shift in Picasso's style and profoundly impacted subsequent artistic movements, including Futurism and Abstract Expressionism, by fundamentally altering perceptions of space, form, and the aesthetic.,,,

Which choice best states the main purpose of the text?

- ☐ A To analyze the use of Iberian sculpture and African masks in Picasso's *Les Femmes d'Alger (O.J.)*.
- ☐ B To describe a painting's groundbreaking stylistic innovations and its impact on modern art.
- ☐ C To discuss the tension and confrontation experienced by viewers of *Les Femmes d'Alger (O.J.)*.
- ☐ D To explain the techniques of fragmentation and geometric forms employed in Picasso's *Les Femmes d'Alger (O.J.)*.

Question 2

In their 2007 study published in *The Journal of Aesthetic Education*, art historians Eleanor W. Leach and David A. Koval explored the concept of *ekphrasis*, specifically focusing on its manifestation in Ovid's *Metamorphoses*. *Ekphrasis*, a rhetorical device involving the vivid description of a work of art within a literary text, serves to create a multisensory experience for the reader. Leach and Koval meticulously analyze how Ovid utilizes this technique to imbue his narrative with rich imagery and evoke emotional responses, arguing that his mastery of *ekphrasis* is fundamental to the poem's enduring power and its influence on subsequent Western literature. Their research demonstrates the intricate relationship between visual art and literature in ancient Roman culture.

Which choice best states the main purpose of the text?

- ☐ A To summarize an academic study about a literary technique used in an ancient Roman poem.
- ☐ B To describe the specific instances of *ekphrasis* found within Ovid's *Metamorphoses*.
- ☐ C To argue for the significance of *ekphrasis* as a rhetorical device in ancient Roman literature.
- ☐ D To compare Ovid's use of *ekphrasis* to that of other ancient Roman poets.

Question 3

Pleurobrachia bachei, a species belonging to the phylum Ctenophora, is commonly known as the Pacific sea gooseberry. These marine invertebrates, often mistaken for jellyfish due to their gelatinous bodies, possess distinctive features that differentiate them. Unlike jellyfish, which utilize nematocysts for prey capture, *P. bachei* employs colloblasts, specialized adhesive cells on its tentacles, to ensnare prey. Furthermore, a key characteristic of Ctenophora, including *P. bachei*, is their locomotion via eight rows of fused cilia, known as ctenes, which also refract light to produce iridescent effects. These ctenes are the largest known structures used for ciliary propulsion in the animal kingdom. *P. bachei* are pelagic, often found in nearshore surface waters, and are carnivorous, feeding on various planktonic organisms.

Which choice best states the main purpose of the text?

- A** To argue that *Pleurobrachia bachei* should be reclassified based on new observations about its feeding mechanisms.
- B** To provide a concise overview of the key biological characteristics of *Pleurobrachia bachei*.
- C** To compare and contrast the methods of locomotion used by *Pleurobrachia bachei* and jellyfish.
- D** To detail the predatory behaviors and dietary preferences of *Pleurobrachia bachei*.

Question 4

Despite being the largest animals on Earth, the *Balaenoptera musculus*, or blue whale, primarily consumes *Euphausia superba*, a species of krill measuring only about two centimeters in length. This seemingly incongruous diet is facilitated by a unique digestive system. Blue whales possess a four-chambered stomach and an extraordinarily long intestine, which can extend over 200 meters. These anatomical features, along with specialized digestive enzymes capable of breaking down the chitinous exoskeletons of krill, allow the blue whale to efficiently process the massive quantities of small prey required to sustain its immense size. The structure and function of the blue whale's digestive tract demonstrate a remarkable adaptation to a diet of small invertebrates.

Which choice best states the main purpose of the text?

- ☐ A To describe the adaptations of the blue whale's digestive system that enable it to subsist on a diet of krill.
- ☐ B To highlight the surprising contrast between the blue whale's enormous size and its diet of tiny krill.
- ☐ C To explain the specific function of each chamber in the blue whale's four-chambered stomach.
- ☐ D To detail the process by which the blue whale's digestive enzymes break down the chitin in krill.

Question 5

In a study published in *Nature Ecology & Evolution* in 2022, researchers, led by evolutionary biologist Sarah Friedman, investigated the impact of artificial light at night (ALAN) on the host-seeking behavior of the Southern house mosquito, *Culex quinquefasciatus*. The study found that exposure to even low levels of ALAN significantly increased the mosquitoes' attraction to host cues, such as carbon dioxide and human-simulated odors. Furthermore, the researchers identified specific photopigments within the mosquito's compound eye, likely opsins, that are particularly sensitive to the wavelengths of light commonly emitted by outdoor lighting, suggesting a potential physiological mechanism for the observed behavioral changes.

Which choice best states the main purpose of the text?

- ☐ A To describe research into the effects of artificial light on mosquito behavior.
- ☐ B To detail the methodology used in a study on mosquito host-seeking.
- ☐ C To explain the specific photopigments found in *Culex quinquefasciatus*.
- ☐ D To advocate for reducing artificial light to control mosquito populations.

Question 6

George Saunders's short story collection *Pastoralia* (2000) presents a series of narratives that delve into the absurdities and indignities faced by individuals navigating precarious and often dehumanizing work environments. Saunders employs a distinctive blend of satire, dark humor, and profound empathy to illuminate the psychological toll of such conditions. Characters are frequently trapped in bizarre, pseudo-corporate structures, forced to adhere to illogical rules and performance metrics that erode their sense of self and connection to others. The collection subtly critiques contemporary societal values, particularly the emphasis on productivity and adherence to arbitrary systems, often at the expense of genuine human flourishing and connection.

Which choice best states the main purpose of the text?

- A** To analyze the use of satire and dark humor in George Saunders's writing.
- B** To summarize the plot of George Saunders's short story collection *Pastoralia*.
- C** To argue that contemporary work environments are becoming increasingly bizarre and dehumanizing.
- D** To provide an overview of the themes and stylistic elements present in George Saunders's *Pastoralia*.

Question 7

Research into the Devonian period (419.2 to 358.9 million years ago) reveals significant developments in terrestrial plant life. While earlier land plants existed, they were largely small and lacked complex structures like true roots, leaves, or extensive vascular systems. However, by the Middle to Late Devonian, a remarkable evolutionary step occurred: the emergence of the first trees and, consequently, the first forests. These early trees, such as *Wattieza* and later *Archaeopteris*, developed characteristics like true wood and complex root systems, allowing them to grow significantly taller and form dense stands. This transition from low-lying vegetation to towering forests fundamentally altered terrestrial ecosystems and influenced global climate.

Which choice best states the main purpose of the text?

- A** To describe a significant evolutionary development in terrestrial plants during the Devonian period.
- B** To compare and contrast the characteristics of *Wattieza* and *Archaeopteris*, two early tree species.
- C** To argue that the emergence of forests during the Devonian period was the primary cause of changes in global climate.
- D** To detail the specific environmental conditions that led to the development of the first true roots and vascular systems in Devonian plants.

Question 8

Research in social science has explored the mechanisms underlying human cooperation, particularly in contexts where individual self-interest conflicts with collective benefit. One proposed mechanism is altruistic punishment, where individuals incur a personal cost to penalize non-cooperators, even without direct personal gain. Studies, such as those by Fehr and Gächter (2002), using experimental economics games, have demonstrated that the opportunity for altruistic punishment significantly increases and sustains cooperation levels in groups of unrelated strangers. This phenomenon is observed even in one-shot interactions, suggesting that the motivation to punish is not solely driven by reciprocal benefits or reputation effects. Furthermore, research has investigated factors influencing altruistic punishment, including the cost-to-impact ratio of punishment and the role of emotions.

Which choice best states the main purpose of the text?

- ☐ A To compare and contrast different theories about the evolution of human cooperation.
- ☐ B To argue that altruistic punishment is the most important factor in maintaining social order.
- ☐ C To provide an overview of research suggesting altruistic punishment as a mechanism for promoting cooperation.
- ☐ D To critique the methodology of experimental economics studies on human behavior.

Question 9

In a 2021 study, paleontologists identified several fossilized teeth discovered in Punta Cascada, Argentina, as belonging to a previously unknown extinct shark species, which they named *Palaeocarcharodon necochea*. These teeth exhibit a unique combination of features: they are relatively small, possess multiple cusplets (small points) flanking the main cusp, and display a distinctive root structure. The researchers analyzed the geological layer in which the fossils were found, determining that *P. necochea* existed during the Paleocene epoch, approximately 60 million years ago. This discovery provides valuable insights into the early diversification of lamniform sharks, a group that includes modern-day great white and mako sharks, suggesting a greater degree of morphological and taxonomic diversity in the aftermath of the Cretaceous-Paleogene extinction event than previously understood.

Which choice best describes the overall structure of the text?

- A** It details a research method used to analyze fossilized remains, explains the limitations of this method, and then proposes an alternative approach for future studies.
- B** It introduces the discovery of a new fossil species, describes the characteristics of the fossilized remains and their geological context, and discusses the broader implications of this finding for understanding ancient life.
- C** It presents a hypothesis about the evolutionary history of a group of marine animals, outlines the evidence that supports this hypothesis, and then considers potential challenges to this interpretation.
- D** It compares and contrasts the features of a newly discovered fossil with those of known species, highlights the similarities between them, and concludes by emphasizing the importance of these similarities for classification.

Question 10

Fungal endophytes, microorganisms that live within plants without causing disease, are known to benefit their hosts, particularly in temperate grasses. However, less is understood about endophytes in tropical grasses. A 2021 study by Teixeira *et al.* investigated fungal endophyte communities in *Brachiaria* grasses, a tropical genus important for forage. The researchers isolated fungal endophytes from nine *Brachiaria* species using morphological and molecular techniques, identifying a diverse collection of 177 fungal isolates. This yielded 38 distinct operational taxonomic units (OTUs), predicted to represent 38 potential species. The study concluded that *Brachiaria* grasses harbor a large and genetically diverse group of putative fungal endophytes.

Which choice best describes the overall structure of the text?

- A** It introduces a well-known biological phenomenon, describes a study that challenges previous assumptions about this phenomenon, and presents the unexpected results of that study.
- B** It introduces a group of organisms, discusses a research study about these organisms in a specific environment, and presents the findings of that study.
- C** It describes a scientific problem, explains a proposed solution to this problem, and provides evidence that supports the effectiveness of the proposed solution.
- D** It highlights the importance of certain organisms, presents a classification system for these organisms, and explains how different categories within the system are characterized.

Question 11

In ant species, chemical signals, particularly pheromones, play a crucial role in orchestrating a wide array of behaviors, including foraging, reproduction, and defense. The ant *Pheidole dentata*, for instance, exhibits a sophisticated defense strategy that relies heavily on these chemical cues. Minor workers, the smaller caste, are typically the first to encounter intruders and release alarm pheromones. These pheromones, detected by other colony members, trigger a rapid and coordinated recruitment of major workers, the larger, soldier caste, to the site of the disturbance. This swift mobilization of defenders allows the colony to mount an effective response against threats, highlighting the intricate chemical communication network underlying social insect defense.

Which choice best describes the function of the underlined sentence in the text as a whole?

- A** It details the specific chemical composition of the alarm pheromones released by *Pheidole dentata* minor workers.
- B** It explains the immediate consequence of the release of alarm pheromones in *Pheidole dentata* colonies.
- C** It contrasts the defensive behaviors of minor and major workers in *Pheidole dentata*.
- D** It provides evidence that *Pheidole dentata* ants use chemical signals for communication beyond defense.

Question 12

Dendroctonus ponderosae, the mountain pine beetle, is a significant pest in coniferous forests. These beetles communicate through semiochemicals, including aggregation pheromones like *trans*-verbenol and anti-aggregation pheromones like verbenone. *Trans*-verbenol, produced by female beetles, attracts both sexes, leading to mass attacks on host trees. Verbenone, on the other hand, is synthesized by symbiotic microbes within the beetles during later stages of colonization and signals that a tree is heavily infested, deterring further aggregation. The balance between these pheromones regulates beetle population density on a single tree, preventing overcrowding and resource depletion while still allowing for successful colonization.

Which choice best states the main purpose of the text?

- A** To detail the process by which *Dendroctonus ponderosae* beetles utilize pheromones to initiate mass attacks on coniferous trees.
- B** To compare the chemical structures and production pathways of *trans*-verbenol and verbenone in *Dendroctonus ponderosae*.
- C** To explain how pheromones mediate the aggregation and dispersal behavior of *Dendroctonus ponderosae* beetles.
- D** To argue for the importance of microbial symbionts in the synthesis of verbenone by *Dendroctonus ponderosae*.

Question 13

Pterois volitans, an invasive fish in the Caribbean Sea, has drawn significant scientific attention due to its rapid proliferation and detrimental effects on native ecosystems. Its venom, delivered through dorsal, pelvic, and anal spines, contains a complex mixture of proteins and peptides. Research by Church and Hodgson (2002) indicated that *P. volitans* venom includes components that affect both adrenergic and cholinergic systems. Furthermore, studies such as Cohen and Olek (1989) have identified acetylcholine and a neurotoxin within the aqueous fraction of the spine tissue, highlighting the multifaceted pharmacological properties of this venom. The presence of these various bioactive substances contributes to the painful and disruptive physiological responses observed in organisms envenomated by *P. volitans*.

Which choice best describes the function of the underlined sentence in the text as a whole?

- A** It presents a historical overview of research into the venom composition of *Pterois volitans*.
- B** It provides specific examples of compounds found in *Pterois volitans* venom, supporting a previous claim.
- C** It introduces a contrasting viewpoint regarding the effects of *Pterois volitans* venom.
- D** It explains the mechanism by which the neurotoxin in *Pterois volitans* venom affects physiological systems.

Question 14

Sigrid Undset's monumental historical novel, *Kristin Lavransdatter*, published as a trilogy between 1920 and 1922, offers a profound exploration of a woman's life in 14th-century Norway. The narrative meticulously details the protagonist's journey from childhood innocence through the complexities of love, marriage to Erlend Nikulaussøn, motherhood, and ultimately, a quest for spiritual redemption. Undset masterfully interweaves the political, social, and religious fabric of the era, depicting everything from daily life on a farm like Jörundgaard to the broader implications of events such as the Black Plague. The novel examines themes of sin, guilt, love, duty, and the struggle for agency within a patriarchal society, all while highlighting the tension between lingering pagan traditions and the dominant Catholic faith.

Which choice best states the main purpose of the text?

- ☐ A To analyze the historical accuracy of Sigrid Undset's depiction of 14th-century Norway in *Kristin Lavransdatter*.
- ☐ B To discuss the critical reception and literary impact of Sigrid Undset's trilogy, *Kristin Lavransdatter*.
- ☐ C To summarize the plot and character development of Kristin Lavransdatter in Sigrid Undset's novel.
- ☐ D To provide an overview of the subject matter and thematic concerns of Sigrid Undset's novel, *Kristin Lavransdatter*.

Question 15

Archaeological investigations at various sites throughout the Mediterranean region have provided crucial evidence regarding the complex and interconnected trade networks that flourished during antiquity, particularly under the Roman Empire.

Excavations have uncovered a wealth of artifacts, such as amphorae used for transporting goods like wine and olive oil, as well as luxury items like silk, spices, and precious metals sourced from distant lands. These findings challenge earlier "primitivist" views of the ancient economy, which posited that trade was limited primarily to luxury goods and was not conducted on a large scale or in bulk. Instead, the distribution and sheer volume of these archaeological remains indicate a robust and extensive commercial system that facilitated the movement of a wide variety of commodities across vast distances by both land and sea. This archaeologically derived understanding significantly contributes to reconstructing the scope and nature of ancient economic activity and cultural exchange.

Which choice best states the main purpose of the text?

- ☐ A To advocate for further archaeological research into Roman trade networks in the Mediterranean.
- ☐ B To detail the specific types of goods transported throughout the Roman Empire via trade networks.
- ☐ C To discuss how archaeological evidence has informed the understanding of ancient Roman trade.
- ☐ D To compare the scale and nature of Roman trade with that of other ancient Mediterranean civilizations.

Question 16

Architecture and human psychology have long been understood to share a dynamic and intricate relationship. Environmental psychology, a field formally established in the 1960s, specifically investigates the ways in which built environments influence human behavior and well-being. This discipline examines how various architectural elements—such as spatial layout, natural light exposure, material choices, and even acoustic properties—can impact mood, cognitive function, and social interaction. Research in environmental psychology demonstrates that design decisions are not merely aesthetic or functional; they have tangible psychological consequences for the inhabitants of a space, influencing everything from stress levels to social cohesion.

Which choice best states the main purpose of the text?

- ☐ A To argue that architects should prioritize psychological well-being in their designs over aesthetics and functionality.
- ☐ B To provide an overview of the field of environmental psychology and its focus on the impact of architecture on human behavior.
- ☐ C To detail the specific architectural elements that environmental psychology has identified as influencing human mood and cognition.
- ☐ D To discuss the historical development of environmental psychology since its formal establishment in the 1960s.

Question 17

Research in social science explores how individuals and societies respond to environmental changes, particularly those arising from climate shifts. Studies indicate that human populations exhibit a range of psychological and behavioral adaptations when faced with altered environmental conditions, such as changes in temperature, precipitation patterns, and the frequency of extreme weather events. These adaptations can manifest as changes in settlement patterns, agricultural practices, and even social structures. Furthermore, research highlights the significant mental health impacts associated with environmental distress, including increased levels of anxiety, depression, and trauma-related disorders. Understanding these multifaceted human responses is crucial for developing effective strategies to mitigate the negative consequences of environmental change and enhance human well-being.

Which choice best describes the overall structure of the text?

- A** It presents a scientific phenomenon, then discusses the historical origins of research into that phenomenon, and finally proposes a solution to address the issues related to the phenomenon.
- B** It introduces a field of study, then describes the various ways humans respond to the subject of that study, and concludes by emphasizing the importance of understanding these responses.
- C** It outlines the methodology used in a specific research study, then presents the findings of that study in detail, and finally discusses the limitations of the study's conclusions.
- D** It discusses a debate within a field of study, then provides evidence to support one side of the debate, and finally suggests areas for future research to resolve the debate.

Question 18

Nitrogen fixation, the conversion of atmospheric nitrogen gas (N_2) into usable forms like ammonia (NH_3), is critical for plant growth, as most plants cannot directly utilize atmospheric N_2 . Biological nitrogen fixation is primarily carried out by prokaryotes, such as bacteria, often in symbiotic relationships with plants. A prominent example is the symbiosis between *Rhizobium* species and leguminous plants, where the bacteria reside in root nodules and convert N_2 into ammonia, which the plant then assimilates. This mutualistic relationship provides the bacteria with carbohydrates from the plant and the plant with essential nitrogen. While other nitrogen-fixing bacteria exist, the *Rhizobium*-legume symbiosis is a highly efficient and well-studied system in agriculture.

Which choice best states the main purpose of the text?

- A** To advocate for the increased use of *Rhizobium* bacteria in agricultural practices to reduce reliance on synthetic fertilizers.
- B** To explain the process of biological nitrogen fixation, with a focus on the symbiotic relationship between *Rhizobium* bacteria and leguminous plants.
- C** To compare the efficiency of nitrogen fixation in the *Rhizobium*-legume symbiosis with other types of nitrogen-fixing bacteria.
- D** To detail the biochemical mechanisms by which *Rhizobium* bacteria convert atmospheric nitrogen into ammonia within root nodules.

Question 19

Virgil's *Aeneid*, an epic poem foundational to Roman literature, recounts the journey of Aeneas from the fallen city of Troy to Italy, where he is destined to establish a new civilization that will eventually lead to the founding of Rome. The poem opens by declaring its subject: arms and the man. This bipartite structure, focusing on both warfare and the individual hero's trials, immediately signals Virgil's engagement with the Homeric tradition, echoing the themes of the *Iliad* and the *Odyssey*. Following this introduction, the narrative details Juno's persistent wrath and the divine obstacles placed in Aeneas's path, emphasizing the significant role of the gods in human affairs and the concept of fate that drives the epic's plot.

Which choice best describes the function of the underlined sentence in the text as a whole?

- ☐ A It elaborates on the specific types of warfare Aeneas encounters in the latter half of the epic.
- ☐ B It introduces the primary antagonists Aeneas faces throughout his journey to Italy.
- ☐ C It explains how Virgil's stated subject matter relates to established epic conventions.
- ☐ D It clarifies the historical accuracy of the events depicted in the initial books of the poem.

Question 20

In their 2022 study published in *Nature Human Behaviour*, Michael Kuniavsky and colleagues investigated how the design of urban spaces influences pedestrian movement and social interaction. The researchers utilized a mixed-methods approach, combining spatial analysis of street networks and public spaces with ethnographic observations of pedestrian behavior in diverse urban environments across several continents. Their findings revealed a significant correlation between highly connected street grids and the presence of public seating areas, and increased pedestrian flow and prolonged social engagements. These results suggest that deliberate urban planning strategies focusing on walkability and the provision of communal spaces can foster more vibrant and socially interactive urban life.

Which choice best describes the overall structure of the text?

- A** It introduces a research study on a specific social phenomenon, then describes the methodologies used in the study, and finally presents the study's findings and their implications.
- B** It presents a hypothesis about urban design, then provides examples of urban spaces that support this hypothesis, and concludes by suggesting future research directions.
- C** It discusses a problem related to urban planning, then evaluates different approaches to solving this problem, and ends by advocating for a particular solution.
- D** It outlines a historical overview of urban development, then analyzes the social consequences of different developmental stages, and finally proposes a new model for urban living.

Answers

Question 1

Correct Answer: B

The passage describes Picasso's painting *Les Femmes d'Alger* and how it was important for modern art because of its new style. (B) talks about describing the painting's new style and its impact. (A), (C), and (D) only talk about smaller details of the painting or how viewers react, not the main point of the whole passage.

Question 2

Correct Answer: A

The passage talks about a study by Leach and Koval that looked at how Ovid used *ekphrasis* in his poem. (A) says the text summarizes a study about a literary technique in a Roman poem, which is what the passage does. (B) is wrong because the passage does not list examples of *ekphrasis* in the poem. (C) is too specific; while the passage mentions the significance, its main purpose is to tell about the study. (D) is wrong because the passage does not compare Ovid to other poets.

Question 3

Correct Answer: B

The passage describes *Pleurobrachia bachei*'s classification, appearance, feeding method, locomotion, habitat, and diet. This means the passage provides a short summary of the important traits of this animal. Therefore, the main purpose is to provide a concise overview of its key biological characteristics (B). The passage does not argue for reclassification (A). While it mentions differences from jellyfish and describes feeding, these are

parts of a larger description, not the sole focus (C and D).

Question 4

Correct Answer: A

The passage talks about how the blue whale, a very big animal, eats tiny krill. It explains that the whale has special body parts and enzymes that help it eat and digest this small food. This shows how the whale has adapted to eat krill. (A) talks about these adaptations. (B) is too narrow because it only talks about the size difference, not how the whale handles it. (C) is incorrect because the passage does not explain what each stomach chamber does. (D) is incorrect because the passage mentions enzymes but doesn't explain how they work.

Question 5

Correct Answer: A

The passage talks about a study that looked at how artificial light affects what mosquitoes do. The study found that lights make mosquitoes more attracted to people. This points to the main purpose being about research into how artificial light impacts mosquito behavior. (A) matches this idea. (B) is wrong because the passage only briefly mentions the methods, not in detail. (C) is too specific, focusing on only one part of the study. (D) is incorrect because the passage describes research findings, it does not tell people to reduce artificial light.

Question 6

Correct Answer: D

The passage talks about George Saunders's book *Pastoralia*. It says what the book is about and how Saunders writes. This matches choice (D), which says the passage gives an overview of the book's themes and style. (A) is

too narrow because the passage discusses more than just satire and humor. (B) is incorrect because the passage describes the themes and style of the collection, not the plot of individual stories. (C) makes a claim about the real world that is not the main point of the passage; the passage focuses on the book's portrayal of these issues.

Question 7

Correct Answer: A

The passage talks about how plants on land changed a lot during the Devonian time, growing taller and forming forests. This was a big step in how life on land evolved. (A) talks about this big change in plants during that time. (B) is wrong because it only talks about comparing two types of trees, which is too specific. (C) is wrong because while the passage mentions forests influencing climate, it doesn't argue it was the *primary* cause. (D) is wrong because it focuses on the reasons for roots and vascular systems, which is only a small part of the passage.

Question 8

Correct Answer: C

The passage talks about research showing that altruistic punishment helps people cooperate. It mentions specific studies and ideas related to this. Option (C) says the passage gives an overview of research on altruistic punishment and cooperation, which matches what the passage does. Option (A) is wrong because the passage focuses on one idea, not comparing many theories. Option (B) is too strong; the passage doesn't say altruistic punishment is the *most* important factor. Option (D) is wrong because the passage describes studies but doesn't criticize how they were done.

Question 9

Correct Answer: B

The passage begins by introducing the discovery of a new fossil species. It then describes what the fossils look like and where they were found. Finally, it explains why this discovery is important for understanding ancient life.

This matches the structure described in (B). (A) is incorrect because the passage does not discuss research methods or their limitations. (C) is incorrect because the passage does not present a hypothesis to be tested. (D) is incorrect because while the passage describes the fossil, it does not compare and contrast it with known species in detail.

Question 10

Correct Answer: B

The passage begins by introducing fungal endophytes. Then, it discusses a study about these organisms in tropical grasses. Finally, it presents the findings of that study. This matches the structure described in (B). (A) is incorrect because the study doesn't necessarily challenge previous assumptions, but rather expands knowledge on a less-studied area. (C) is incorrect as the passage describes a study investigating organisms, not a problem and its solution. (D) is incorrect because while it mentions the importance of the organisms, it does not present a detailed classification system.

Question 11

Correct Answer: B

The underlined sentence describes what happens after the minor workers release alarm pheromones: the major workers are rapidly recruited. This is the immediate result or consequence of the pheromone release. (A) is wrong because the sentence doesn't describe the chemical makeup of the

pheromones. (C) is wrong because while it mentions both minor and major workers, its main function is not to compare their behaviors but to show how the pheromones cause the major workers to respond. (D) is wrong because the sentence focuses specifically on the defense context, not other types of communication.

Question 12

Correct Answer: C

The passage explains how two pheromones, *trans*-verbenol and verbenone, affect the behavior of *Dendroctonus ponderosae* beetles, specifically their aggregation (coming together) and dispersal (spreading out) on trees. This matches the idea in choice (C). Choice (A) is too narrow because it only talks about mass attacks (aggregation) and not dispersal. Choice (B) is incorrect because the passage does not discuss the chemical structures or how the pheromones are made. Choice (D) is too narrow because while it mentions microbial symbionts and verbenone synthesis, it's not the main point of the passage.

Question 13

Correct Answer: B

The previous sentence states that the venom contains a complex mixture of proteins and peptides and affects adrenergic and cholinergic systems. The underlined sentence then gives specific examples of these compounds: acetylcholine and a neurotoxin. Therefore, the underlined sentence supports the previous claim by providing examples.

(A) is incorrect because the sentence does not provide a historical overview.

(C) is incorrect because the sentence does not introduce a contrasting viewpoint.

(D) is incorrect because the sentence identifies the presence of the neurotoxin but does not explain its mechanism of action.

Question 14

Correct Answer: D

The passage talks about what Sigrid Undset's novel *Kristin Lavransdatter* is about and the main ideas in it. It mentions the story follows Kristin's life and explores themes like sin, guilt, and love. (D) says the passage gives an overview of the subject and themes, which matches what the passage does. (A) is incorrect because the passage does not talk about how historically accurate the novel is. (B) is incorrect because the passage does not discuss how people reacted to the book or how it influenced literature. (C) is incorrect because while it mentions the plot and character, it does not summarize them in detail.

Question 15

Correct Answer: C

The passage talks about how finding old things like pottery and jewelry (archaeological evidence) helps us understand how the Romans traded a long time ago. It shows that this evidence changed what we thought about Roman trade. So, the main point is about how looking at old things helps us learn about Roman trade. (C) says this. (A) is wrong because the passage doesn't ask for more research, it just talks about what has been found. (B) is too specific; it mentions some goods but doesn't just list all the types. (D) is wrong because the passage focuses on Roman trade and doesn't compare it to other civilizations in detail.

Question 16

Correct Answer: B

The passage talks about environmental psychology and how it studies the effect of buildings on people. It explains what this field is about and what it focuses on. (B) says that the passage gives an overview of environmental

psychology and how it looks at how buildings affect people, which matches what the passage does. (A) is wrong because the passage doesn't say architects should care more about feelings than looks. (C) is too specific; the passage mentions some elements but doesn't go into great detail about them. (D) is wrong because while the passage mentions when the field started, it doesn't discuss its history in detail.

Question 17

Correct Answer: B

The passage starts by introducing the field of social science research related to human responses to environmental changes. It then details various ways humans adapt, both psychologically and behaviorally. Finally, it emphasizes the importance of understanding these responses. This structure aligns with choice (B). Choice (A) is incorrect because the passage does not discuss the historical origins of the research or propose a specific solution. Choice (C) is incorrect as the passage does not focus on the methodology or limitations of a single study. Choice (D) is incorrect because the passage does not present a debate within the field.

Question 18

Correct Answer: B

The passage explains how nitrogen fixation is important for plants and focuses on the relationship between *Rhizobium* bacteria and leguminous plants, where the bacteria help the plants use nitrogen from the air. This matches choice (B). Choice (A) talks about using the bacteria more in farming, but the passage doesn't strongly suggest this; it mainly explains the process. Choice (C) compares different bacteria, but the passage mostly focuses on *Rhizobium* and doesn't give many details about other types. Choice (D) discusses the chemical process, but the passage only mentions the conversion to ammonia and doesn't go into the detailed steps.

Question 19

Correct Answer: C

The underlined sentence discusses how Virgil's opening lines, which mention "arms and the man," connect to the traditions of epic poetry, specifically the *Iliad* and the *Odyssey*. This connection shows how Virgil's stated subject aligns with the typical subjects of epic poems.

(A) is incorrect because the sentence does not go into detail about specific types of warfare.

(B) is incorrect because the sentence focuses on the epic's themes and connection to Homer, not on introducing antagonists like Juno, who are mentioned later.

(D) is incorrect because the sentence discusses literary conventions and themes, not the historical accuracy of the events.

Question 20

Correct Answer: A

The passage starts by introducing a study about how urban design affects people's movement and interaction. It then explains the methods used in the study, like looking at street networks and observing people. Finally, it shares what the study found and what those findings mean for urban planning. This matches the structure described in (A). (B) is incorrect because the passage doesn't start with a hypothesis, nor does it provide examples to support one. (C) is incorrect because the passage doesn't discuss a problem and evaluate solutions; it presents research. (D) is incorrect because the passage doesn't provide a historical overview of urban development.