

Information and Ideas

Question 1

In her 1990 essay, literary critic Barbara Johnson argued that the ambiguity in Zora Neale Hurston's *Their Eyes Were Watching God* stems from its challenge to established literary conventions.

Johnson posited that the novel resists a singular interpretation, intentionally oscillating between standard English and vernacular dialect to mirror Janie Crawford's evolving identity. This fluidity, Johnson contended, destabilizes traditional readings that seek to categorize the novel within a fixed literary or social framework.

Some scholars, however, critique Johnson's emphasis on ambiguity, suggesting that Hurston's use of dialect is a deliberate and assertive expression of Black cultural identity, rather than a sign of indecision.

Which choice best states the main idea of the text?

- A** Barbara Johnson's analysis of *Their Eyes Were Watching God* focuses on the novel's deliberate ambiguity, a perspective challenged by scholars who see Hurston's dialect as a celebration of Black cultural identity.
- B** The contrasting interpretations of Hurston's *Their Eyes Were Watching God* highlight a debate over whether the novel's literary merit stems from its use of vernacular dialect or its ability to mirror Janie Crawford's evolving identity.
- C** While Barbara Johnson views the mixture of standard English and vernacular dialect in *Their Eyes Were Watching God* as a challenge to literary conventions, other scholars believe that this is a weakness to the novel.

- D The ambiguity in *Their Eyes Were Watching God* is unintentional, reflecting Zora Neale Hurston's struggle to reconcile standard English with vernacular dialect, resulting in a novel that defies categorization.

Question 2

The naked mole-rat (*Heterocephalus glaber*), a subterranean rodent native to East Africa, exhibits a complex social structure characterized by eusociality, a rare trait among mammals. A single breeding female, known as the queen, and one to three breeding males are responsible for reproduction within the colony. The majority of individuals are non-reproductive workers who perform various tasks such as foraging, burrow maintenance, and cooperative care of the young. This reproductive division of labor and overlap of generations contribute to the colony's success in a challenging environment. Studies, such as those by Jarvis in 1981 and Brett in 1991, have detailed the intricate organization of these colonies and the specialized roles of different individuals within the naked mole-rat social system.

Which choice best states the main idea of the text?

- A** The reproductive success of the naked mole-rat (*Heterocephalus glaber*) is solely dependent on the queen and breeding males, with workers contributing only negligibly to the perpetuation of the species.
- B** Unlike other mammals, the naked mole-rat (*Heterocephalus glaber*) has evolved a unique social system involving specialized castes and cooperative behaviors that enhance its survival in its specific ecological niche.
- C** The challenging subterranean environment of East Africa is the primary selective pressure that led to the evolution of eusociality and the complex social structure observed in the naked mole-rat (*Heterocephalus glaber*).
- D** The naked mole-rat (*Heterocephalus glaber*) is a mammalian species that exhibits eusociality, characterized by a specific reproductive structure and division of labor among colony members, as documented by researchers.

Question 3

In their 2013 paper, psychologists O'Brien and Ellsworth investigated how anticipating savoring an experience affects enjoyment. They hypothesized that anticipating savoring a positive event intensifies the emotional response. Participants were instructed to either savor a piece of chocolate or to eat it normally. The savoring group reported significantly higher levels of enjoyment. A follow-up study explored this further by varying the delay before the chocolate consumption. Results indicated that the longer the anticipation period, the more intensely participants experienced the pleasure. These findings suggest that savoring, especially when anticipation is involved, can amplify the positive emotional impact of an experience.

Which choice best states the main idea of the text?

- A** O'Brien and Ellsworth's studies demonstrate that the act of savoring, particularly when coupled with anticipation, heightens the enjoyment of positive experiences.
- B** Although anticipation can increase enjoyment, O'Brien and Ellsworth's research indicates that savoring techniques have no impact on the consumption of chocolate.
- C** O'Brien and Ellsworth's 2013 paper was ultimately disproven by later studies that found no correlation between anticipation and enjoyment.
- D** The studies by O'Brien and Ellsworth suggest that positive experiences are only enjoyable when participants actively focus on savoring them.

Question 4

Many bird species undertake long migrations, a phenomenon influenced by various environmental cues. Dr. Christine Mouritsen and her team, in a 2013 study published in *Nature*, investigated the role of geomagnetic fields in guiding European robins (*Erithacus rubecula*) during their annual journey. They observed that robins exposed to disrupted magnetic fields exhibited less directional flight compared to those in natural fields. However, the exact mechanism by which these birds detect and use the Earth's magnetic field for navigation remains unclear. Dr. Mouritsen hypothesizes that specialized photoreceptors in the birds' eyes are key to their magnetic sensing ability.

Which finding, if true, would most directly support Dr. Mouritsen's hypothesis?

- A** European robins migrate shorter distances than many other bird species.
- B** Birds from a population that naturally lacks these specialized photoreceptors are unable to orient themselves using magnetic fields.
- C** The brain regions associated with magnetic field processing are more developed in migratory birds than in non-migratory birds.
- D** Experiments show that artificial light pollution affects the migratory timing of European robins.

Question 5

In their 2019 study, "Consumer Behavior in the Digital Age: A Paradigm Shift in Decision-Making," researchers Smith and Jones challenged traditional models of consumer behavior. They posited that while external factors like marketing stimuli and socioeconomic status are undeniably influential, the internal cognitive processes of the *individual consumer decision-making unit* itself play a more significant and independent role in shaping purchasing outcomes, brand loyalty, and post-purchase satisfaction in the contemporary marketplace. Their research, employing a mixed-methods approach including neuroscientific techniques and qualitative interviews, provided compelling evidence that understanding the intricate dynamics of how consumers process information and evaluate alternatives is crucial for predicting and influencing their actions.

Which choice best states the main idea of the text?

- A** Smith and Jones's 2019 study utilized a mixed-methods approach to investigate the influence of external factors on the purchasing behaviors and brand loyalty of the individual consumer decision-making unit.
- B** Traditional models of consumer behavior are entirely irrelevant in the digital age due to the overwhelming influence of internal cognitive processes within the individual consumer decision-making unit.
- C** While internal cognitive processes are a component of consumer behavior, Smith and Jones's research ultimately concluded that external factors remain the primary drivers of purchasing outcomes and post-purchase satisfaction.
- D** Smith and Jones's research proposes that the internal cognitive processes of the individual consumer decision-making unit are a more critical independent factor in determining consumer behavior outcomes than traditionally acknowledged external factors.

Question 6

Heinrich Wölfflin's *Principles of Art History* (1915) established a foundational framework for understanding the stylistic differences between Renaissance and Baroque art, moving beyond earlier pejorative views of the latter. His formal analysis emphasized categories like 'linear vs. painterly' and 'multiplicity vs. unity,' defining Baroque as a distinct, valid aesthetic rather than a decline from classical ideals. Prior to Wölfflin, many 18th-century critics, steeped in Neoclassical principles, often dismissed Baroque as 'excessive' or 'unnatural,' favoring the clarity and restraint of antiquity. This shift in art historical discourse suggests that _____

Which choice most logically completes the text?

- A** Wölfflin's systematic approach to art history effectively ended all subsequent debates about the value of Baroque art.
- B** the aesthetic qualities of Baroque art underwent significant changes between the 18th century and the early 20th century.
- C** interpretations of art are often profoundly shaped by the prevailing aesthetic sensibilities and intellectual paradigms of the era in which they are made.
- D** earlier art critics lacked the necessary analytical tools to properly understand complex artistic movements like the Baroque.

Question 7

In his 1967 essay, "The Death of the Author," Roland Barthes articulates a seminal shift in literary criticism. Barthes contends that the *author*—the individual creator of a text—should not be the focal point of interpretive efforts. Instead, the *text* should be understood independently of the author's intentions or biography. This is because the meaning of a text arises not from its origin but from the convergence of multiple cultural codes and references activated by the reader. Barthes posits that once the work is released to the public, it no longer belongs to the author. The author's role is merely to initiate the text; its true meaning is ultimately constructed by the reader.

Which choice best states the main idea of the text?

- A Barthes's essay argues that understanding an author's life is essential for interpreting their works.
- B Barthes's "The Death of the Author" proposes that a text's meaning is primarily determined by the reader's interpretation, not the author's intent.
- C Barthes's essay focuses on how cultural codes within a text reflect the author's personal experiences.
- D Barthes's "The Death of the Author" suggests authors should relinquish all control over their works once they are published.

Question 8

A number of artists associated with hyperpop, a movement in electronic music that emerged in the 2010s, aggressively manipulate their recorded voice. The singer Dorian Electra, for example, shifts the pitch of their vocals to be much deeper than that of Electra's natural range. And even the hyperpop artists who don't rely on pitch-shifting, such as Kim Petras, often distort their vocals using digital tools. By persistently modifying the voice, hyperpop invites the listener to reflect on the extent to which digital technology mediates the human experience today.

Which description of vocal manipulation in hyperpop is best supported by the text?

- A** It represents the continuity of human experience despite social and historical change.
- B** It symbolizes the power of contemporary music to influence listeners' sense of self.
- C** It serves as an example of digital technology's negative influence on daily life.
- D** It functions as a commentary on contemporary social conditions.

Question 9

Research conducted by Dr. Kalle M. Röskä and Dr. Johanna K. Riipinen in 2016 explored the influence of particle effective density on the atmospheric lifetime of aerosol particles, specifically focusing on how variations in the *mass-mobility exponent* (a parameter relating a particle's mass to its mobility in an electric field) impact their removal by precipitation scavenging. Their findings indicated that for fractal-like soot aerosols with a *mass-mobility exponent* significantly lower than that of solid spheres, the effective density plays a more crucial role in determining the efficiency of wet deposition processes, such as collection by raindrops, than for more compact, spherical particles. This highlights that the internal structure, not solely the size, of complex atmospheric particulates is a critical factor in predicting their atmospheric residence time and subsequent impact on climate and air quality.

Which choice best states the main idea of the text?

- A** The *mass-mobility exponent* is a parameter of greater importance than particle size in determining the atmospheric lifetime of all types of aerosol particles, according to research by Dr. Röskä and Dr. Riipinen.
- B** A study by Dr. Röskä and Dr. Riipinen revealed that the effective density and internal structure of fractal-like soot aerosols, as indicated by their *mass-mobility exponent*, are significant in predicting their removal by precipitation, unlike more compact particles.
- C** Precipitation scavenging is the primary mechanism by which all aerosol particles are removed from the atmosphere, as demonstrated by the 2016 research from Dr. Kalle M. Röskä and Dr. Johanna K. Riipinen on particle effective density.
- D** Dr. Röskä and Dr. Riipinen's 2016 research primarily focused on the development of new methods for measuring the effective density of atmospheric aerosol particles with varying *mass-mobility exponent*.

Question 10

Chemical communication in social insects often involves complex pheromone blends. Research published in 2014 by Xiao-Ke Wen and colleagues investigated the trail pheromone of the fungus-growing termite, *Odontotermes formosanus*. [5] They identified two key volatile organic compounds emitted from the sternal glands: (3Z)-dodec-3-en-1-ol (DOE) and (3Z,6Z)-dodeca-3,6-dien-1-ol (DDE). [5] Behavioral assays suggested DOE primarily induces orientation behavior in termites exploring new territory, while DDE has both orientation and recruitment effects, particularly important when a food source is discovered. [4, 5] The researchers observed that the ratio of these two components changed depending on the termites' ongoing behaviors. [1, 4, 5] This led Wen and colleagues to hypothesize that *O. formosanus* workers deliberately modulate the DOE-to-DDE ratio within their pheromone trails to communicate specific information about the foraging context, such as the nature of a discovered resource or the status of the trail itself. [2, 4]

Which finding, if true, would most directly support the hypothesis of Wen and colleagues?

- A** Electrophysiological recordings from *Odontotermes formosanus* antennae show distinct patterns of olfactory receptor neuron activation in response to (3Z)-dodec-3-en-1-ol versus (3Z,6Z)-dodeca-3,6-dien-1-ol, indicating differential sensory processing capabilities for the two compounds.
- B** The compound (3Z)-dodec-3-en-1-ol is found to be significantly more volatile under typical foraging temperatures and humidity levels than (3Z,6Z)-dodeca-3,6-dien-1-ol, causing passive changes in trail composition over time regardless of termite activity.
- C** Experimental trails leading *Odontotermes formosanus* workers to a highly preferred, nutrient-rich food source exhibit a consistently and significantly different ratio of (3Z,6Z)-dodeca-3,6-dien-1-ol to (3Z)-dodec-3-en-1-ol compared to trails laid during initial, undirected

exploration phases.

- D Genetic analysis reveals that the biosynthetic pathways responsible for producing (3Z)-dodec-3-en-1-ol and (3Z,6Z)-dodeca-3,6-dien-1-ol in

Odontotermes formosanus sternal glands share several common enzymatic steps with pathways producing defensive secretions.

Question 11

In a series of longitudinal assessments, the Italian National Institute of Statistics has tracked shifts in violent crime prevalence across the peninsula since the late twentieth century. Researchers like Corrado Bonifazi (2017) suggest that systemic legal reforms and targeted law enforcement initiatives specifically curtailed the influence of organized criminal syndicates, which were historically responsible for a substantial portion of lethal violence. This socio-legal transformation is reflected in the longitudinal homicide data; for instance, _____

Which choice most effectively uses data from the graph to complete the statement?

- A** the annual rate of lethal violence remained largely stagnant between 1990 and 2010 at roughly 3.4 deaths per 100,000 people, before experiencing its only significant decrease in 2020.
- B** although the homicide rate per 100,000 people was 1.5 in 2000, it climbed back to 3.4 by 2020, suggesting that the influence of organized criminal syndicates has intensified in the twenty-first century.
- C** the homicide rate per 100,000 people decreased by precisely 1.0 every ten years from 1990 to 2020, demonstrating a perfectly consistent response to the socio-legal transformations mentioned.
- D** the homicide rate per 100,000 people fell from 3.4 in 1990 to 1.5 in 2000, and continued its downward trajectory over the next two decades to reach 0.5 by 2020.

Question 12

In medical image segmentation, transformer-based architectures have shown promise but often require substantial computational resources. Hatamizadeh and colleagues (2022) developed SwinUNETR, a model incorporating a hierarchical transformer encoder that aims to achieve parameter efficiency while maintaining competitive inference speed. The architecture utilizes shifted windows for self-attention computation, which theoretically reduces redundancy compared to conventional transformer designs. When evaluated on the BTCV dataset for multi-organ segmentation tasks, computational metrics including parameter count, floating-point operations, and inference latency varied considerably across architectures; for example, _____.

Which choice most effectively uses data from the graph to complete the statement?

- A** nnUNet required 19.07M parameters and achieved the fastest inference time at 10.28 seconds, while TransUNet required 96.07M parameters but processed images more slowly at 26.97 seconds.
- B** SETR demonstrated moderate computational demands with 86.03M parameters and 43.49G FLOPs, whereas UNETR utilized 92.58M parameters with slightly fewer FLOPs at 41.19G.
- C** TransUNet required the most parameters at 96.07M but achieved relatively low FLOPs at 48.34G, while nnUNet required only 19.07M parameters despite substantially higher FLOPs at 412.65G.
- D** SwinUNETR achieved parameter efficiency with 61.98M parameters compared to TransUNet's 96.07M, while requiring comparable FLOPs to nnUNet at 394.84G and maintaining inference time of 13.84 seconds.

Question 13

Researchers David Melamed and colleagues (2020) investigated how features of online prosocial behavior influence social perception. Focusing on digital gift-giving platforms, they conducted studies where participants evaluated hypothetical givers. They compared perceptions of individuals who dispensed small, frequent gifts over time versus those who gave large, infrequent gifts. Although both types of givers contributed a similar total value, participants consistently rated the frequent, small-gift givers as having higher overall generosity. The researchers conclude that the perceived generosity of online givers is driven more by the frequency and consistency of their actions than by the total value of the gifts exchanged.

Which finding, if true, would most directly undermine the conclusion of Melamed and colleagues?

- A** Users evaluate givers who provide a single large gift as significantly more generous than those who give multiple small gifts totaling the same value.
- B** The platform's design prominently displays the total number of gifts given by a user, regardless of their value.
- C** Participants in the study reported valuing the thoughtfulness behind a gift more than its monetary worth.
- D** Givers who provided large, infrequent gifts tended to receive more public recognition or 'likes' per gift than those who provided small, frequent gifts.

Question 14

Ancient accounts of Alexander the Great, like those by Arrian, often highlight his military brilliance and seemingly divine destiny. Modern biographies, such as A. B. Bosworth's 1988 work, offer a more critical perspective. While acknowledging Alexander's tactical genius, Bosworth emphasizes the immense brutality and suffering caused by his campaigns, detailing events like the destruction of Thebes. This shift in focus doesn't dispute the military achievements but recontextualizes them, suggesting that _____

Which choice most logically completes the text?

- A** modern biographers like Bosworth disregard Alexander's military successes entirely.
- B** ancient accounts like Arrian's failed to mention any of the negative consequences of Alexander's campaigns.
- C** later historical accounts may evaluate figures like Alexander based on a wider set of criteria, including the ethical implications of their actions, than earlier accounts did.
- D** A. B. Bosworth's work is solely focused on correcting inaccuracies found in Arrian's account.

Question 15

Bees play a crucial role in pollination, yet their populations face significant threats. Researchers, including *Dr. Lars Straub* and his team, investigated the effects of systemic neonicotinoid pesticides on honey bee colonies. In a 2016 study published in *Science*, they exposed bee colonies to field-realistic levels of clothianidin and thiamethoxam. They found that exposed colonies exhibited reduced foraging success and winter survival rates compared to unexposed colonies. The decline in foraging was attributed to impaired navigation and learning abilities. Straub's team hypothesized that persistent exposure to these agricultural pesticides is the *primary* driver of honey bee colony collapse, rather than parasitic mites or viral pathogens.

Which finding, if true, would most directly undermine Straub's team's hypothesis?

- A** Honey bee colonies exposed to neonicotinoid pesticides show increased susceptibility to *Nosema ceranae* infection compared to unexposed colonies.
- B** The application of neonicotinoid pesticides has significantly decreased in certain regions where bee populations continue to decline.
- C** Beekeepers who avoid planting crops treated with neonicotinoid pesticides report consistently healthier colonies.
- D** Studies reveal that the removal of parasitic mites from bee colonies significantly reduces collapse rates, even when neonicotinoid exposure is constant.

Question 16

Outdoor air pollution increases the risk of respiratory and heart diseases. Researchers like Hannah Ritchie and Max Roser (2021) have noted that death rates from air pollution often vary based on a country's level of industrialization. Generally, nations transitioning into middle-income status experience higher death rates than high-income nations. This trend is evident in the data because _____

Which choice most effectively uses data from the graph to complete the statement?

- A** the death rates in industrializing countries like China and India are above 90 per 100,000 people, while high-income countries like the United Kingdom and United States have rates of 11 and 8.2 respectively.
- B** Pakistan has a significantly lower death rate than the United Kingdom, suggesting that less industrialization leads to higher air quality in all cases.
- C** every country shown in the data has a death rate from outdoor air pollution that exceeds 50 per 100,000 people regardless of its economic status.
- D** Ethiopia's death rate is higher than that of China, demonstrating that low-income countries are more affected by pollution than upper-middle-income ones.

Question 17

In *Graphs, Maps, Trees: Abstract Models for a Literary History* (2005), Franco Moretti utilizes "distant reading"—analyzing vast literary datasets—to identify large-scale trends. Examining thousands of British novel titles from 1740 to 1850, Moretti finds a marked decrease in titles signaling genre (e.g., *The History of Tom Jones, a Foundling*) and a concurrent increase in titles featuring only a protagonist's name (e.g., *Emma*). Moretti concludes that this quantitative trend in titling conventions signifies a major cultural shift within the novel form, reflecting a growing emphasis on individual characterization and interiority over adherence to established narrative archetypes.

Which finding, if true, would most directly undermine Moretti's conclusion?

- A** The trend observed by Moretti in British novel titles did not occur in the titling conventions of British plays published during the same period.
- B** Correspondence between publishers and authors from the period reveals frequent discussions about choosing titles that would maximize reader interest and sales.
- C** A study of Spanish novels from the same era shows an identical quantitative shift towards proper name titles, yet literary historians demonstrate that Spanish novelists largely retained a focus on social satire rather than individual psychology.
- D** Computational analysis of the narrative content of the novels in Moretti's dataset shows that the average sentence length increased significantly between 1740 and 1850.

Question 18

In a 2021 study, Dr. Andrea Wiley examined regional disparities in the availability of bovine lacteal secretions from *Bos taurus* intended for human consumption. The analysis utilized data regarding the aggregate quantity of dairy resources distributed within specific geographic zones, accounting for retail and household-level wastage. Researchers noted that the distribution of these resources is heavily influenced by historical agricultural practices and the prevalence of the *LCT* gene. Dr. Wiley hypothesizes that the per-capita supply in regions traditionally characterized by intensive dairy farming exceeds the global average, whereas supply in regions where adult-onset hypolactasia is common remains below that average.

Which choice best describes data from the graph that support Dr. Wiley's hypothesis?

- A** The global average milk supply of 87 kilograms per person is higher than the supply in North America and Europe, but it remains significantly lower than the supply recorded for Africa.
- B** Europe's milk supply of 201 kilograms per person is approximately double the supply in North America (181 kilograms per person) and more than ten times the supply available in Africa.
- C** The milk supply in Europe and North America is recorded at 201 and 181 kilograms per person, respectively, both of which exceed the global average of 87, whereas the supply in Africa is significantly lower at 35 kilograms per person.
- D** The milk supply in North America is 181 kilograms per person, a value that is precisely double the global average of 87, while Europe's supply of 201 kilograms per person is the highest regional value recorded.

Question 19

Plants possess sophisticated defense mechanisms against herbivores. While defenses triggered by larval feeding are well-documented, Monika Hilker and Torsten Meiners' research highlights that some plants initiate defenses merely upon detection of insect oviposition (egg-laying). For instance, the elm leaf beetle (*Xanthogaleruca luteola*) ovipositing on elm trees (*Ulmus*) induces the release of synomones, volatile chemicals that attract egg parasitoids like *Oomyzus gallerucae*. Similarly, *Pieris brassicae* butterflies laying eggs on *Brassica nigra* plants triggers changes in leaf surface chemistry, deterring further oviposition by other butterflies. These "early alert" systems differ significantly from defenses activated by the tissue damage resulting from larval feeding, which often involve different signaling pathways and a distinct repertoire of chemical compounds, suggesting that _____

Which choice most logically completes the text?

- A the recruitment of egg parasitoids like *Oomyzus gallerucae* through volatile synomones represents the most common and effective defense mechanism plants utilize against insect oviposition across different plant species.
- B plants that exhibit oviposition-induced defenses, such as changes in leaf surface chemistry seen in *Brassica nigra*, are unlikely to possess separate defense mechanisms activated by larval feeding later on.
- C plants exhibit a sophisticated capacity to discriminate between the threat signals associated with herbivore oviposition and those associated with larval feeding, enabling the activation of distinct defense responses appropriate to each stage.
- D the chemical defenses induced by insect oviposition are generally less energetically costly for the plant to produce compared to the complex array of compounds deployed in response to extensive tissue damage from feeding larvae.

Question 20

Amos Tversky and Daniel Kahneman's seminal 1981 work, "The Framing of Decisions and the Psychology of Choice," introduced the concept of the framing effect, challenging traditional rational actor models in decision-making. Their classic experiment, the *Asian disease problem*, presented participants with a hypothetical scenario concerning an outbreak expected to kill 600 people. When programs were framed in terms of *lives saved* (a positive frame), respondents overwhelmingly preferred a certain outcome of saving 200 lives over a risky option with an equivalent expected value. Conversely, when the identical programs were framed in terms of *lives lost* (a negative frame), participants favored the risky option, even though the statistical outcomes were objectively equivalent. This observed reversal of preferences, despite the invariance principle of rational choice, highlights that _____

Which choice most logically completes the text?

- A** the number of individuals affected by a catastrophic event has a more pronounced impact on decision-making than the specific phrasing used to describe potential interventions.
- B** traditional economic theories accurately predict human behavior when individuals are presented with clear, unambiguous statistical probabilities of various outcomes.
- C** people tend to evaluate risk more cautiously when confronted with choices involving potential gains compared to choices involving potential losses.
- D** the psychological framing of outcomes, specifically as potential gains or losses, systematically influences individuals' subjective evaluations of equivalent prospects and their subsequent risk propensity.

Answers

Question 1

Correct Answer: A

The passage talks about Barbara Johnson's argument on *Their Eyes Were Watching God* and other scholars' disagreement with her. So, the main idea should be about Johnson's argument and the disagreement.

(A) accurately describes the passage's central theme: Johnson's focus on ambiguity and the opposing view that sees Hurston's dialect as a celebration of Black identity. (B) is incorrect because the passage does not explicitly discuss the literary merit of the novel. (C) is incorrect because the passage does not state that scholars view the mixture of English and dialect as a weakness. (D) contradicts the passage by stating that the ambiguity is unintentional.

Question 2

Correct Answer: D

The passage describes the naked mole-rat as a mammal with eusociality, explaining its social structure with a queen, breeding males, and non-reproductive workers who have specific roles. This matches the description in (D).

(A) is incorrect because the passage states that workers perform essential tasks like foraging and burrow maintenance, indicating their contribution is not negligible. (B) is too extreme by claiming the social system is unlike *other* mammals when the passage only focuses on the naked mole-rat and mentions eusociality is rare, not unique among all other mammals. (C) is too narrow; while the challenging environment is mentioned, the passage focuses more on describing the social structure itself rather than arguing that the environment was the *primary* cause of its evolution.

Question 3

Correct Answer: A

The passage is about how savoring an experience and looking forward to it can make you enjoy it more, based on research by O'Brien and Ellsworth. So, we can predict that the main idea would be that savoring and anticipation increase enjoyment.

(A) This choice says that O'Brien and Ellsworth's studies show that savoring and anticipation increase enjoyment. This matches our prediction.

(B) This choice says that savoring has no impact, which is the opposite of what the passage says.

(C) This choice says that O'Brien and Ellsworth's paper was disproven, which is not true according to the passage.

(D) This choice is too extreme. The passage claims that savoring amplifies the enjoyment of an experience, but it doesn't necessarily mean that positive experiences are only enjoyable when actively savoring them.

Question 4

Correct Answer: B

The passage describes a study where robins use Earth's magnetic fields for navigation, but how they do it is a mystery. Dr. Mouritsen thinks special parts in their eyes, called photoreceptors, help them sense magnetic fields.

To support this idea, we need a finding that shows a direct link between these eye parts and the ability to sense magnetic fields.

(A) talks about migration distance, which is not related to how they sense magnetic fields.

(B) says that if birds don't have these special eye parts, they can't use magnetic fields to find their way. This directly supports the idea that these eye parts are needed for magnetic sensing.

(C) talks about brain regions, not the specific eye parts mentioned in the hypothesis.

(D) talks about light pollution affecting migration timing, which is different from how they sense magnetic fields for navigation.

Question 5

Correct Answer: D

The passage is about a study by Smith and Jones. The study suggests that how a person thinks inside (internal cognitive processes) is more important than things outside (external factors) in deciding what they buy and if they like it afterward. The main idea is what this study found.

Choice (A) is wrong because the study said the *internal* processes are more significant, not the external factors.

Choice (B) is wrong because the passage says external factors are still influential, just not as significant as the internal processes according to the study.

Choice (C) is wrong because it says external factors are the primary drivers, which is the opposite of what the study suggests.

Choice (D) correctly states that the study proposes internal cognitive processes are a more critical independent factor than external factors in influencing consumer behavior.

Question 6

Correct Answer: C

The passage talks about how people thought about Baroque art at different times. First, in the 18th century, critics who liked old Greek and Roman art (Neoclassical principles) thought Baroque art was too much. But later, in 1915, Wölfflin looked at it differently and said it was its own special style. This shows that how people see and judge art changes depending on the ideas and styles popular in their own time.

(A) is wrong because the passage does not say that Wölfflin's work stopped all arguments about Baroque art. It only talks about a "shift in art historical discourse."

(B) is wrong because art itself does not change over time; what changes is how people understand or interpret it.

(D) is wrong because the passage does not say that earlier critics did not have the right tools. It implies their perspective was influenced by their time's tastes, not a lack of tools.

Question 7

Correct Answer: B

The passage is about Roland Barthes's essay "The Death of the Author." This essay presents the idea that the reader, not the author, determines the meaning of a text. The author only starts the text, but the reader truly makes the meaning.

We need to find the answer choice that best matches this main idea. A good answer will mention Barthes's theory of the reader's role in creating meaning.

(A) This is incorrect because it says understanding the author's life is *essential*, which is the opposite of what Barthes argues.

(B) This is correct because it accurately states that Barthes believes the reader's interpretation, not the author's intent, primarily determines a text's meaning.

(C) This is incorrect because it focuses on *cultural codes* reflecting the author's experiences, but Barthes focuses on the reader using the cultural codes to determine the meaning.

(D) This is incorrect because it is too extreme. The passage does not say authors should relinquish *all control*. It only mentions that the author no longer *owns* the meaning of the text.

Question 8

Correct Answer: D

The passage can be summarized as follow:

Hyperpop music = manipulate voice (pitch-shifting, distorting)

!' Listener reflect on digital tech + human experience.

The passage explicitly states that by persistently modifying the voice, hyperpop "invites the listener to reflect on the extent to which digital technology mediates the human experience today." This directly implies that vocal manipulation serves as a commentary on contemporary social conditions where digital technology plays a significant role in human experience. Therefore, (D) is the correct answer.

(A) is incorrect because the passage focuses on how digital technology mediates human experience *today*, not on the continuity of human experience despite change.

(B) is incorrect because while hyperpop may influence listeners, the passage highlights that the manipulation invites reflection on digital technology and human experience, not specifically listeners' sense of self.

(C) is incorrect because the passage describes the effect of vocal manipulation (inviting reflection) without presenting it as a negative influence.

Question 9

Correct Answer: B

The passage discusses research by Dr. Rösikä and Dr. Riipinen about how the effective density and internal structure of certain particles affect how they are removed from the air. The study found that for some particles, the internal structure is very important for predicting how long they stay in the air. So, the main idea is about the study's findings on how the structure of certain particles influences their removal from the atmosphere.

Choice (A) is incorrect because the passage states that the effective density is *more* crucial for fractal-like soot aerosols, not that the *mass-mobility exponent* is of *greater* importance than size for *all* types of aerosols.

Choice (C) is incorrect because the passage focuses on *how* effective density impacts removal by precipitation scavenging for certain particles, not that precipitation scavenging is the *primary* removal mechanism for *all* aerosols.

Choice (D) is incorrect because the passage describes the *impact* of effective density and *mass-mobility exponent* on atmospheric lifetime and removal, not the *development* of new measurement methods.

Question 10

Correct Answer: C

The passage talks about termites (*Odontotermes formosanus*) using two chemicals, DOE and DDE, to make trails. DOE helps them explore new places, and DDE helps them find food and bring friends. [4, 5] Researchers think the termites change the mix (ratio) of DOE and DDE on purpose to tell each other specific things about the trail or food. [2, 4] We need to find a choice that shows the termites *do* change the mix to send a specific message.

(C) says that trails leading to really good food have a different mix of DDE and DOE compared to trails made when just exploring. [C] This shows the termites changing the mix based on the situation (good food vs exploring), which supports the idea that they change the ratio to communicate specific information (like "this food is great!").

(A) talks about how termites smell the chemicals differently. This is interesting but doesn't show they change the *mix* to send messages.

(B) says one chemical disappears faster than the other, changing the mix naturally over time. This would mean the change *isn't* on purpose, which goes against the researchers' idea.

(D) talks about how the chemicals are made inside the termite. This doesn't

tell us if the termites change the mix to communicate.

Question 11

Correct Answer: D

We first look at the passage, which can be summarized as follows:

Condensed Version:

"Italy tracked violent crime (late 20th century)

Legal reforms + law enforcement !' !"organized crime

Organized crime = big part of lethal violence

Homicide data shows this transformation"

The passage tells us that legal reforms and law enforcement reduced organized crime, which then led to a decrease in homicides. So we need data showing homicide rates *declining* over time.

(A) is incorrect because it claims rates "remained largely stagnant" and only decreased in 2020, contradicting the idea of ongoing transformation.

(B) is incorrect because it suggests homicide rates *increased* and organized crime "intensified," which directly contradicts the passage's claim about reforms reducing criminal influence.

(C) can be eliminated by checking the graph: 1990 to 2000 shows a decrease of 1.9 (3.4 to 1.5), not 1.0, so the decrease was not "precisely 1.0 every ten years."

Now looking at the graph to verify the remaining choice: The data shows 3.4 in 1990, 1.5 in 2000, 1.0 in 2010, and 0.5 in 2020—a consistent downward trend that supports the passage's claim about socio-legal transformation reducing homicides.

(D) is the correct

Question 12

Correct Answer: D

We first look at the passage, which can be summarized as follows:

"SwinUNETR = transformer for medical image segmentation

Goal: parameter efficiency + competitive inference speed

Uses: shifted windows !' less redundancy

BTCV dataset: parameter count, FLOPs, inference time vary across models"

The passage emphasizes that SwinUNETR aims for *parameter efficiency* while maintaining *competitive inference speed*. The blank needs to show how computational metrics varied across architectures in a way that's relevant to discussing SwinUNETR's performance.

(A) is incorrect because it only compares nnUNet and TransUNet without mentioning SwinUNETR, which is the focus of the passage.

(B) is incorrect because it discusses SETR and UNETR without any reference to SwinUNETR, failing to connect to the main subject.

(C) is incorrect because it compares TransUNet and nnUNet without addressing SwinUNETR's performance claims about parameter efficiency.

Looking at the table, **(D)** directly addresses SwinUNETR's performance. It shows SwinUNETR used 61.98M parameters (less than TransUNet's 96.07M, demonstrating parameter efficiency), had FLOPs comparable to nnUNet (394.84G vs 412.65G), and maintained reasonable inference time at 13.84 seconds. This choice effectively illustrates the "

Question 13

Correct Answer: A

The passage talks about a study where researchers looked at how people see online givers. The study found that people who give small gifts often are seen as nicer than people who give big gifts not so often, even if the total

amount given is the same. The researchers think this means *how often* someone gives is more important than *how much* they give for seeming nice online.

The question asks for something that would make this idea less likely to be true.

(A) says people think a single big gift makes someone seem *nicer* than many small gifts that add up to the same amount. This is the opposite of what the researchers concluded, which said *how often* matters more than *how much*. So, this finding would make the researchers' idea seem wrong.

(B) talks about how the website shows the number of gifts. This might help explain why giving often is noticeable, but it doesn't show that *how much* is more important than *how often* for seeming nice.

(C) talks about valuing the idea behind a gift over its price. This is a different idea and doesn't compare *how often* someone gives to *how much* they give when deciding if they seem nice.

(D) talks about getting 'likes' or public praise, which is different from just seeming nice overall. It also doesn't clearly compare giving often versus giving a lot at once for seeming nice.

Question 14

Correct Answer: C

The passage talks about two views of Alexander the Great. Old accounts, like Arrian's, focus on his awesome military skills and how special he seemed. Newer accounts, like Bosworth's, still agree he was a smart general but also point out he was very cruel and caused a lot of pain. Bosworth doesn't ignore the wins but looks at them differently by including the bad stuff.

The key information is that Arrian focused on positive things (skill, destiny), while Bosworth added negative things (brutality, suffering) to give a different picture. This suggests that how historians judge people like Alexander has

changed over time. Newer historians think about more things, like whether actions were right or wrong (ethical), not just about winning battles.

(C) says that newer accounts judge Alexander using more factors, including right and wrong, compared to older accounts. This matches what we inferred from the passage.

(A) is wrong because the passage clearly says Bosworth *acknowledges* Alexander's tactical genius; he doesn't ignore it.

(B) is wrong because the passage says Arrian *often highlighted* the good parts, not that he *never* mentioned any bad parts.

(D) is wrong because the passage says Bosworth gives a *critical perspective* and *recontextualizes* Alexander's actions; it doesn't say his only aim was to fix Arrian's story.

Question 15

Correct Answer: D

The passage says that Dr. Straub and his team believe that pesticides are the main reason why bee colonies are collapsing, and not tiny bugs (mites) or diseases (pathogens). To "undermine" their idea means to find something that makes their idea seem less likely to be true.

(A) This choice says that pesticides make bees weaker to a disease. This doesn't say that pesticides are *not* the main problem; it just shows how pesticides *cause* a problem with disease. So, it does not undermine the hypothesis that pesticides are the primary driver.

(B) This choice says that even when pesticides are used less, bees still die. This might make you think something else is the problem, but it doesn't directly point to mites or pathogens as the *primary* cause over pesticides. It could be other factors or simply that pesticide levels are still too high.

(C) This choice says that when people avoid pesticides, bees are healthier. This actually *supports* the idea that pesticides are a problem, rather than undermining it.

(D) This choice says that if you get rid of the tiny bugs (mites), the bees stop collapsing, even if they are still exposed to pesticides. This directly goes against Straub's idea that pesticides are the *primary* driver, because it shows that mites are actually the main problem, even when pesticides are around. This is the correct answer because it makes Straub's hypothesis less strong.

Question 16

Correct Answer: A

We first look at the passage, which can be summarized as follows:

"Air pollution !' respiratory & heart diseases

Middle-income countries (transitioning) > High-income countries (death rates)"

The passage states that countries transitioning into middle-income status experience *higher* death rates than high-income nations. We need to find data that supports this claim.

From the passage alone, we can eliminate **(C)** because it claims "every country" has a death rate exceeding 50 per 100,000, which contradicts the idea that high-income countries have *lower* rates than middle-income countries—they should show different levels, not all be above the same threshold.

We can also eliminate **(D)** because it suggests low-income countries are *more* affected than upper-middle-income ones, which contradicts the passage's claim that middle-income (transitioning) countries have the highest rates.

Now examining the graph data: China (100), India (91), and Pakistan (87) represent industrializing/middle-income countries with high death rates, while the United Kingdom (11) and United States (8.2) represent high-income countries with much lower rates. This pattern matches the passage's claim perfectly.

(B) is incorrect because Pakistan actually has a *higher* death rate (87) than the United Kingdom (11), not lower, contradicting the statement entirely.

(A) is the correct answer.

Question 17

Correct Answer: C

The passage says Franco Moretti looked at lots of British novel titles from long ago (1740-1850). He saw fewer titles explaining the story type and more titles just using a character's name. He decided this means novels started focusing more on characters' thoughts and feelings instead of standard story types.

To undermine Moretti means finding something that suggests his idea is wrong. We need something showing that the change in titles *doesn't* mean novels started focusing more on character thoughts and feelings.

(A) talks about plays, but Moretti's conclusion is about novels. What happened with plays doesn't disprove his idea about novels.

(B) suggests titles were chosen to sell more books. This gives another possible reason for the title change but doesn't directly attack the idea that the change reflected a focus on character. Maybe focusing on character *helped* sales.

(D) talks about how long sentences were. Sentence length changing doesn't prove whether the focus was on character feelings or not. This is off-topic.

(C) says that in Spain, the same change in titles happened (more names, fewer genres), BUT Spanish novels kept focusing on society, not character feelings. This shows the title change can happen *without* the shift in focus Moretti described. If the title change doesn't always go with a focus on character psychology, then Moretti's conclusion that the British title change *signifies* this focus is weakened.

Question 18

Correct Answer: C

We first look at the passage, which can be summarized as follows:

"Study: milk availability differences by region

Factors: farming history + LCT gene

Hypothesis: Intensive dairy farming regions > global average

Regions with hypolactasia < global average"

Dr. Wiley's hypothesis makes two claims: (1) regions with intensive dairy farming have milk supply above the global average, and (2) regions where adult-onset hypolactasia (lactose intolerance) is common have supply below the global average.

From the passage alone, we know that Europe and North America are traditionally intensive dairy farming regions, while Africa is a region where hypolactasia is common. We need an answer that shows Europe/North America > global average AND Africa < global average.

(A) is incorrect because it claims the global average is higher than North America and Europe, which contradicts the hypothesis.

(B) is incorrect because while it provides accurate comparisons between regions, it doesn't mention the global average, which is essential for testing the hypothesis.

(D) is incorrect because it incorrectly states that North America's supply (181) is "precisely double" the global average (87), when $87 \times 2 = 174$, not 181.

Looking at the graph confirms that **(C)** is correct: Europe (201) and North America (181) both exceed the global average (87), while Africa (35) is significantly below it. This perfectly supports both parts of Dr. Wiley's hypothesis.

<b

Question 19

Correct Answer: C

The passage explains that plants have ways to protect themselves from bugs that eat them. Some plants start defending themselves even before the bug eggs hatch, just when the eggs are laid. For example, one plant releases smells to call wasps that attack the bug eggs, and another plant changes its leaves so other bugs won't lay eggs there. The passage says these "early warnings" are different from the defenses plants use when baby bugs (larvae) start eating the leaves. Those defenses use different signals and different chemicals.

This information tells us that plants can tell the difference between just eggs being on them and baby bugs actually eating them. Because they can tell the difference, they use different ways to protect themselves depending on what's happening. This matches choice (C), which says plants can tell the difference between egg-laying and feeding and use specific defenses for each situation.

(A) is wrong because the passage only gives one example (*Ulmus*) of using smells to call helpers. It doesn't say this is the most common or effective way for all plants.

(B) is wrong because the passage doesn't say that plants using one type of defense (like changing leaves for eggs) can't also use another type (like fighting off feeding larvae). It actually suggests plants have *different* responses for different stages.

(D) is wrong because the passage doesn't talk about how much energy each type of defense costs the plant. It only says the defenses are different.

Question 20

Correct Answer: D

The passage describes an experiment where people were asked to choose

between two ways to deal with a disease. The two options were actually the same in terms of how many lives would be saved or lost, but they were described in different ways. When the options were talked about as "lives saved" (a good way to say it), people chose the safe option. But when the options were talked about as "lives lost" (a bad way to say it), people chose the risky option. This shows that how something is *said* or *framed* changes how people *feel* about it and what they *decide* to do, even if the real facts are the same.

(A) is wrong because the passage shows that the *framing* of the problem, not just the number of people, had a big impact on decisions. The numbers were always about 600 people, but the choices changed depending on how it was presented.

(B) is wrong because the passage explains that the experiment *challenged* traditional economic ideas that say people always make rational choices based on facts. The fact that framing changed decisions shows that people are *not* always rational.

(C) is wrong because it flips what the passage says. The passage says people chose the *safe* option (risk-averse) when it was framed as "lives saved" (a gain) and the *risky* option (risk-seeking) when it was framed as "lives lost" (a loss). So, people are *more* cautious with gains, not less.

(D) is correct. The passage shows that the way the problem was "framed" (as gains or losses) changed how people *felt* about the choices, which then changed their willingness to take risks. This means their feelings about the situation, not just the facts, guided their decisions.