

#1

ID: ed314256

The most recent iteration of the immersive theater experience *Sleep No More*, which premiered in New York City in 2011, transforms its performance space—a five-story warehouse—into a 1930s-era hotel. Audience members, who wander through the labyrinthine venue at their own pace and follow the actors as they play out simultaneous, interweaving narrative loops, confront the impossibility of experiencing the production in its entirety. The play’s refusal of narrative coherence thus hinges on the sense of spatial fragmentation that the venue’s immense and intricate layout generates.

What does the text most strongly suggest about *Sleep No More*’s use of its performance space?

- A) The choice of a New York City venue likely enabled the play’s creators to experiment with the use of theatrical space in a way that venues from earlier productions could not.
- B) Audience members likely find the experience of the play disappointing because they generally cannot make their way through the entire venue.
- C) The production’s dependence on a particular performance environment would likely make it difficult to reproduce exactly in a different theatrical space.
- D) Audience members who navigate the space according to a recommended itinerary will likely have a better grasp of the play’s narrative than audience members who depart from that itinerary.

#2

ID: 458b4a11

To understand how temperature change affects microorganism-mediated cycling of soil nutrients in alpine ecosystems, Eva Kaštovská et al. collected plant-soil cores in the Tatra Mountains at elevations around 2,100 meters and transplanted them to elevations of 1,700–1,800 meters, where the mean air temperature was warmer by 2°C. Microorganism-mediated nutrient cycling was accelerated in the transplanted cores; crucially, microorganism community composition was unchanged, allowing Kaštovská et al. to attribute the acceleration to temperature-induced increases in microorganism activity.

It can most reasonably be inferred from the text that the finding about the microorganism community composition was important for which reason?

- A) It provided preliminary evidence that microorganism-mediated nutrient cycling was accelerated in the transplanted cores.
- B) It suggested that temperature-induced changes in microorganism activity may be occurring at increasingly high elevations.
- C) It ruled out a potential alternative explanation for the acceleration in microorganism-mediated nutrient cycling.
- D) It clarified that microorganism activity levels in the plant-soil cores varied depending on which microorganisms comprised the community.

#3

ID: 1ba5ad7a

Many literary theorists distinguish between *fabula*, a narrative's content, and *syuzhet*, a narrative's arrangement and presentation of events. In the film *The Godfather Part II*, the *fabula* is the story of the Corleone family, and the *syuzhet* is the presentation of the story as it alternates between two timelines in 1901 and 1958. But literary theorist Mikhail Bakhtin maintained that *fabula* and *syuzhet* are insufficient to completely describe a narrative—he held that systematic categorizations of artistic phenomena discount the subtle way in which meaning is created by interactions between the artist, the work, and the audience.

Which choice best states the main idea of the text?

- A) Literary theorist Mikhail Bakhtin argued that there are important characteristics of narratives that are not fully encompassed by two concepts that other theorists have used to analyze narratives.
- B) Literary theorist Mikhail Bakhtin claimed that meaning is not inherent in a narrative but is created when an audience encounters a narrative so that narratives are interpreted differently by different people.
- C) The storytelling methods used in *The Godfather Part II* may seem unusually complicated, but they can be easily understood when two concepts from literary theory are utilized.
- D) Narratives that are told out of chronological order are more difficult for audiences to understand than are narratives presented chronologically.

#4

ID: 1a2b29c9

The following text is adapted from María Cristina Mena's 1914 short story "The Vine-Leaf."

It is a saying in the capital of Mexico that Dr. Malsufrido carries more family secrets under his hat than any archbishop.

The doctor's hat is, appropriately enough, uncommonly capacious, rising very high, and sinking so low that it seems to be supported by his ears and eyebrows, and it has a furry look, as if it had been brushed the wrong way, which is perhaps what happens to it if it is ever brushed at all. When the doctor takes it off, the family secrets do not fly out like a flock of parrots, but remain nicely bottled up beneath a dome of old and highly polished ivory.

Based on the text, how do people in the capital of Mexico most likely regard Dr. Malsufrido?

- A) Many have come to tolerate him despite his disheveled appearance.
- B) Few feel concerned that he will divulge their confidences.
- C) Some dislike how freely he discusses his own family.
- D) Most would be unimpressed by him were it not for his professional expertise.

#5

ID: 2fdfe002

The following text is adapted from Countee Cullen's 1926 poem "Thoughts in a Zoo."

They in their cruel traps, and we in ours,
Survey each other's rage, and pass the hours
Commiserating each the other's woe,
To mitigate his own pain's fiery glow.
Man could but little proffer in exchange
Save that his cages have a larger range.
That lion with his lordly, untamed heart
Has in some man his human counterpart,
Some lofty soul in dreams and visions wrapped,

But in the stifling flesh securely trapped.

Based on the text, what challenge do humans sometimes experience?

- A) They cannot effectively tame certain wild animals because of a lack of compassion.
- B) They cannot focus on setting attainable goals because of a lack of motivation.
- C) They quickly become frustrated when faced with difficult tasks because of a lack of self-control.
- D) They have aspirations that cannot be fulfilled because of certain limitations.

#6

ID: 701126bc

In superfluorescence, electrical charges known as dipoles emit light in synchronized bursts so intense that they are visible to the eye. Until recently, this phenomenon has only been observed at extremely cold temperatures because dipoles cannot synchronize at higher temperatures. But in a study, Melike Biliroglu and colleagues observed superfluorescence at room temperature in thin films made of perovskite and other similarly crystalline materials; the researchers propose that the formation of shock-absorbing quasiparticles called polarons in the material protects dipoles from thermal interference.

Based on the text, how are polarons believed to be involved in the superfluorescence observed in Biliroglu and colleagues' study?

- A) Polarons enable superfluorescent bursts to cross from one crystalline material to another.
- B) Polarons allow for the dipoles to synchronize despite higher temperatures.
- C) Polarons accelerate the dipoles' release of superfluorescent bursts.
- D) Polarons decrease the intensity of the superfluorescent burst.

#7

ID: 9731a22b

Paleontologist Lucas E. Fiorelli and colleagues have reported the discovery at a mine in Brazil of several egg clutches, partially preserved single eggs, and egg shells from the Late Cretaceous period. The researchers have concluded that the area was once a nesting and breeding site for titanosaurs, a group of sauropod dinosaurs. The finding is significant given the previous lack of known nesting sites in northern regions of South America, which led many paleontologists to assume that titanosaurs migrated south to lay eggs.

What does the text most strongly suggest about the site discovered by the researchers?

- A) It is the earliest known example of a titanosaur nesting and breeding site.
- B) It was very difficult to excavate given that it was discovered in a mine.
- C) It may have been occupied by other sauropods in addition to titanosaurs.
- D) It is farther north than any other nesting site discovered in South America.

#8

ID: 70aacc03

Elizabeth Asiedu has identified a negative correlation between the share of developing countries' economies derived from natural-resource extraction and those countries' receipts of foreign investment. This may appear counterintuitive—resource extraction requires initial investments (in extractive technology, for instance) at scales best met by multinational corporations—but Asiedu notes that natural-resource industries' boom-bust cycle can destabilize local currencies and increase developing countries' vulnerability to external shocks, creating levels of uncertainty to which foreign investors are typically averse.

Which choice best states the main idea of the text?

- A) Although it may seem surprising that foreign investment declines in developing countries as natural-resource extraction makes up a larger share of those countries' economies, that decline happens because resource extraction requires initial investments too large for foreign investors to supply.
- B) Although developing countries tend to become less dependent on foreign investment as natural-resource industries make up a larger share of their economies, this change may not occur if the boom-bust cycle of those industries destabilizes local currencies or increases countries' vulnerability to external shocks.
- C) Although one might expect that foreign investment would increase as natural-resource extraction makes up a larger share of developing countries' economies, the opposite happens because heavy reliance on natural resources can lead to unattractive conditions for investors.
- D) Although foreign investors tend to avoid initial investments in natural-resource industries in developing countries, foreign investment may increase significantly as those industries stabilize and the risks associated with them decline.

#9

ID: f7bd14de

Several scholars have argued that conditions in England in the late ninth through early eleventh centuries—namely, burgeoning literacy amid running conflicts between England’s Anglo-Saxon kingdoms and Danish invaders—were especially conducive to the production of the Old English epic poem *Beowulf*, and they have dated the poem’s composition accordingly. It is not inconceivable that *Beowulf* emerged from such a context, but privileging contextual fit over the linguistic evidence of an eighth- or even seventh-century composition requires a level of justification that thus far has not been presented.

Which choice best states the main idea of the text?

- A) Although there are some grounds for believing that *Beowulf* was composed between the late ninth and early eleventh centuries, advocates for that view tend to rely on evidence that has been called into question by advocates for an earlier date.
- B) Although several scholars have dated *Beowulf* to the late ninth through early eleventh centuries, others have argued that doing so privileges a controversial interpretation of the social conditions of the period.
- C) Although *Beowulf* fits well with the historical context of England in the late ninth through early eleventh centuries, it fits equally well with the historical context of England in the seventh and eighth centuries.
- D) Although the claim of a late ninth- through early eleventh-century composition date for *Beowulf* has some plausibility, advocates for the claim have not compellingly addressed evidence suggesting an earlier date.

#10

ID: 96802cc0

For centuries, the widespread acknowledgment of the involvement of the cerebellum—a dense brain structure in vertebrates—in coordinating motor control in humans has hindered recognition of other possible functions of the structure. Neuroscience research from the last two decades now suggests that the cerebellum regulates emotion and social behavior, and recent research by Ilaria Carta and colleagues has identified a pathway connecting the cerebellum to a center for motivation and reward processing known as the ventral tegmental area (VTA).

Which choice best states the main idea of the text?

- A) The recent verification of a pathway between the VTA and the cerebellum confirms the cerebellum's long-suspected role in motor coordination.
- B) Recent advances in the field of neuroscience have challenged widely accepted claims about the function of a pathway connecting the VTA and the cerebellum.
- C) The cerebellum has primarily been thought to regulate motor functioning, but in recent years neuroscience researchers have been uncovering additional functions.
- D) Technological limitations have historically hindered the study of the cerebellum, but the recent development of new technologies has led to greater insights into its functions.

#11

ID: aa0968dd

Poetry in Classical Nahuatl, the language of the Aztec Empire, relies on *difrasismo*, or a parallel noun construction that conventionally operates as a single metaphor. For example, the common difrasismo *in cuauhtli in ocelotl* (literally, “the eagle, the jaguar”) signifies “warrior.” The device’s function is both formal—providing structure to lines of verse—and ritual: semantic relations among the two nouns and the concept they signify can be tenuous, as in the previous example, such that difrasismos are often only intelligible according to the conceptual associations observed in Aztec ceremonial culture.

Which statement about the difrasismo *in cuauhtli in ocelotl* is most strongly supported by the text?

- A) Its metaphorical significance derives from the semantic equivalence of the two nouns constituting the difrasismo.
- B) Its unintelligibility may cause its formal function within a line of verse to go unnoticed by present-day readers.
- C) Its apparent obscurity can be resolved when considered in the proper cultural context.
- D) Its frequency in Classical Nahuatl poetry confirms its intelligibility to the Aztec audience.

#12

ID: d0f51067

Modern dog breeds are largely the result of 160 years of owners crossbreeding certain dogs in order to select for particular physical appearances. Owners often say that some breeds are also more likely than others to have particular personality traits—basset hounds are affectionate; boxers are easy to train—but Kathleen Morrill and colleagues found through a combination of owner surveys and DNA sequencing of 2,000 dogs that while physical traits are predictably heritable among purebred dogs, behavior varies widely among dogs of the same breed.

Which choice best states the main idea of the text?

- A) Dog breeds would not exist without many years of human intervention in dogs' reproduction.
- B) Research fails to confirm a commonly held belief about dog breeds and behavior.
- C) The dog breeds most popular among owners have often changed over the past 160 years.
- D) A study of dog breeds is notable for its usage of both opinion surveys and DNA sequencing.

#13

ID: 1c69ff20

For many years, the only existing fossil evidence of mixopterid eurypterids—an extinct family of large aquatic arthropods known as sea scorpions and related to modern arachnids and horseshoe crabs—came from four species living on the paleocontinent of Laurussia. In a discovery that expands our understanding of the geographical distribution of mixopterids, paleontologist Bo Wang and others have identified fossilized remains of a new mixopterid species, *Terropterus xiushanensis*, that lived over 400 million years ago on the paleocontinent of Gondwana.

According to the text, why was Wang and his team's discovery of the *Terropterus xiushanensis* fossil significant?

- A) The fossil constitutes the first evidence found by scientists that mixopterids lived more than 400 million years ago.
- B) The fossil helps establish that mixopterids are more closely related to modern arachnids and horseshoe crabs than previously thought.
- C) The fossil helps establish a more accurate timeline of the evolution of mixopterids on the paleocontinents of Laurussia and Gondwana.
- D) The fossil constitutes the first evidence found by scientists that mixopterids existed outside the paleocontinent of Laurussia.

#14

ID: d0fbf1ae

Algae living within the tissues of corals play a critical role in keeping corals, and the marine ecosystems they are part of, thriving. Some coral species appear brown in color when healthy due to the algae colonies living in their tissues. In the event of an environmental stressor, the algae can die or be expelled, causing the corals to appear white. To recover the algae, the bleached corals then begin to produce bright colors, which block intense sunlight, encouraging the light-sensitive algae to recolonize the corals.

What does the text most strongly suggest about corals that produce bright colors?

- A) These corals have likely been subjected to stressful environmental conditions.
- B) These corals are likely more vulnerable to exposure from intense sunlight than white corals are.
- C) These corals have likely recovered from an environmental event without the assistance of algae colonies.
- D) These corals are more likely to survive without algae colonies than brown corals are.

#15

ID: 14189fbb

Having written the impassioned call to arms “Letter to the Spanish Americans” in 1791, Peruvian intellectual Juan Pablo Viscardo y Guzmán is often considered a forerunner for the independence movements in Latin America. But Viscardo’s role in history would have remained insignificant were it not for Venezuelan revolutionary Francisco de Miranda, who was handed the unpublished letter after Viscardo’s death. Miranda not only helped circulate the letter, but his edits and footnotes to the text position Miranda as a central figure in the text’s creation.

Which choice best states the main idea of the text?

- A) The original authorship of “Letter to the Spanish Americans” is disputed by contemporary historians.
- B) The majority of the most eloquently stated arguments in “Letter to the Spanish Americans” were written by Miranda.
- C) Miranda played a crucial role in influencing the content and distribution of “Letter to the Spanish Americans.”
- D) “Letter to the Spanish Americans” persuaded many people in Latin America to pursue national independence.

#16

ID: 36e2868f

The following text is from Thomas Mann's 1924 novel *The Magic Mountain*, translated by John E. Woods in 1995.

The story of Hans Castorp that we intend to tell here—not for his sake (for the reader will come to know him as a perfectly ordinary, if engaging young man), but for the sake of the story itself, which seems to us to be very much worth telling (although in Hans Castorp's favor it should be noted that it is *his* story, and that not every story happens to everybody)—is a story that took place long ago, and is, so to speak, covered with the patina of history and must necessarily be told with verbs whose tense is that of the deepest past.

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What does the text most strongly suggest about the story of Hans Castorp?

- A) Though it is true that stories of even the most uninteresting people are themselves interesting because all people are unique, the reason this story is interesting is nonetheless difficult to understand because of the passage of time.
- B) Even though it is a story of a person of no particular importance, its age and the manner in which it therefore must be told are both indicators that the story itself is important.
- C) Like all stories about the lives of inconsequential people, this story must necessarily be related in a particular way if the reason the story is consequential is to be made evident to the audience.
- D) It is a remarkable story that happened to an unremarkable person, though one could plausibly argue that because the story is valuable, some of its value accrues to the person at its center.

#17

ID: 23ecf625

Conservationists worldwide are working to protect ecosystems from habitat destruction and biodiversity loss, and in many cases, initiatives that rely on natural features or processes can help address such challenges. In response to a rapidly dwindling population of blueback salmon, the Quinault Indian Nation (a tribe in Washington State) partnered with the conservation organization Wild Salmon Center to restore naturally occurring logjams in the Quinault River. The logjams create shady pools where the blueback salmon can rest and spawn, thus promoting blueback population recovery.

Which choice best states the main idea of the text?

- A) A partnership between the Quinault Indian Nation and Wild Salmon Center shows the importance of collaborative approaches to preserving biodiversity.
- B) Nature-based approaches can be effective ways to achieve conservation goals.
- C) As indicated by a recent project, logjams help the blueback salmon thrive and reproduce.
- D) Scientists now realize that nature-based conservation methods offer better long-term solutions to environmental issues than methods that are not nature-based do.

#18

ID: 7f0be746

The following text is from Milan Kundera's 1984 novel *The Unbearable Lightness of Being* (translated by Michael Henry Heim in 1984). Karenin is a dog that belongs to Tomas and Tereza.

Karenin was not overjoyed by the move to Switzerland [from Prague]. Karenin hated change. Dog time cannot be plotted along a straight line; it does not move on and on, from one thing to the next. It moves in a circle like the hands of a clock, which—they, too, unwilling to dash madly ahead—turn round and round the face, day in and day out following the same path. In Prague, when Tomas and Tereza bought a new chair or moved a flower pot, Karenin would look on in displeasure. It disturbed his sense of time. It was as though they were trying to dupe the hands of the clock by changing the numbers on its face.

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Which choice best states the main idea of the text?

- A) As a dog, Karenin possesses a sense of time that involves a strong preference for predictability and an aversion to disruption.
- B) After he's moved to a new home, Karenin's negative response to changes has become more pronounced.
- C) Similar to Tomas and Tereza, Karenin comprehends time as circular rather than as a straightforward progression.
- D) As is the case for other dogs, Karenin's sense of time seems to accelerate depending on the objects and places that surround him.

#19

ID: 4d3e3c52

In a paper about p-i-n planar perovskite solar cells (one of several perovskite cell architectures designed to collect and store solar power), Lyndsey McMillon-Brown et al. describe a method for fabricating the cell's electronic transport layer (ETL) using a spray coating. Conventional ETL fabrication is accomplished using a solution of nanoparticles. The process can result in a loss of up to 80% of the solution, increasing the cost of manufacturing at scale—an issue that may be obviated by spray coating fabrication, which the researchers describe as “highly reproducible, concise, and practical.”

What does the text most strongly suggest about conventional ETL fabrication?

- A) It is less suitable for manufacturing large volumes of planar p-i-n perovskite solar cells than an alternative fabrication method may be.
- B) It is more expensive when manufacturing at scale than are processes for fabricating ETLs used in other perovskite solar cell architectures.
- C) It typically entails a greater loss of nanoparticle solution than do other established approaches for ETL fabrication.
- D) It is somewhat imprecise and therefore limits the potential effectiveness of p-i-n planar perovskite solar cells at capturing and storing solar power.

#20

ID: d1b8a9ad

Disco remains one of the most ridiculed popular music genres of the late twentieth century. But as scholars have argued, the genre is far less superficial than many people believe. Take the case of disco icon Donna Summer: she may have been associated with popular songs about love and heartbreak (subjects hardly unique to disco, by the way), but like many Black women singers before her, much of her music also reflects concerns about community and identity. These concerns are present in many of the genre's greatest songs, and they generally don't require much digging to reveal.

What does the text most strongly suggest about the disco genre?

- A) It has been unjustly ignored by most scholars despite the importance of the themes addressed by many of the genre's songs.
- B) It evolved over time from a superficial genre focused on romance to a genre focused on more serious concerns.
- C) It has been unfairly dismissed for the inclusion of subject matter that is also found in other musical genres.
- D) It gave rise to a Black women's musical tradition that has endured even though the genre itself faded in the late twentieth century.

#21

ID: 16025337

The following text is adapted from William Shakespeare's 1609 poem "Sonnet 27." The poem is addressed to a close friend as if he were physically present.

Weary with toil, I [hurry] to my bed,

The dear repose for limbs with travel tired;

But then begins a journey in my head

To work my mind, when body's work's expired:

For then my thoughts—from far where I abide—

[Begin] a zealous pilgrimage to thee,

And keep my drooping eyelids open wide,

What is the main idea of the text?

- A) The speaker is asleep and dreaming about traveling to see the friend.
- B) The speaker is planning an upcoming trip to the friend's house.
- C) The speaker is too fatigued to continue a discussion with the friend.
- D) The speaker is thinking about the friend instead of immediately falling asleep.

#22

ID: 8f3a200e

Some astronomers searching for extraterrestrial life have proposed that atmospheric NH_3 (ammonia) can serve as a biosignature gas—an indication that a planet harbors life. Jingcheng Huang, Sara Seager, and colleagues evaluated this possibility, finding that on rocky planets, atmospheric NH_3 likely couldn't reach detectably high levels in the absence of biological activity. But the team also found that on so-called mini-Neptunes—gas planets smaller than Neptune but with atmospheres similar to Neptune's—atmospheric pressure and temperature can be high enough to produce atmospheric NH_3 .

Based on the text, Huang, Seager, and colleagues would most likely agree with which statement about atmospheric NH_3 ?

- A) Its presence is more likely to indicate that a planet is a mini-Neptune than that the planet is a rocky planet that could support life.
- B) Its absence from a planet that's not a mini-Neptune indicates that the planet probably doesn't have life.
- C) It should be treated as a biosignature gas if detected in the atmosphere of a rocky planet but not if detected in the atmosphere of a mini-Neptune.
- D) It doesn't reliably reach high enough concentrations in the atmospheres of rocky planets or mini-Neptunes to be treated as a biosignature gas.

#23

ID: db2da2bf

In 2019, 20 previously unknown moons were confirmed to be orbiting Saturn. Three of the moons have prograde orbits (orbiting in the direction the planet spins), and the other 17 have retrograde orbits (orbiting in the opposite direction of the planet's spin). All but one of the 20 moons are thought to be remnants of bodies that orbited Saturn until they broke apart in collisions. Although the one exceptional moon orbits in the same direction as the planet's spin, its orbit is highly eccentric compared to the rest, which may suggest that it has a different origin than the other 19 moons.

Based on the text, which choice best describes the moon with the eccentric orbit?

- A) It doesn't have a retrograde orbit, but it likely has the same origin as the moons with retrograde orbits.
- B) Its orbit is so tilted with respect to the other moons' orbits that it's neither prograde nor retrograde.
- C) It has a prograde orbit that is likely the result of having collided with another body orbiting Saturn.
- D) It has a prograde orbit and may not be a remnant of an earlier body that orbited Saturn.

#24

ID: 2df56712

Electronic music pioneer Wendy Carlos is credited with the music for three feature films: *A Clockwork Orange* (1971), *The Shining* (1980), and *Tron* (1982). However, her musical score for *A Clockwork Orange* is mostly made up of her arrangements of Ludwig van Beethoven's work. Also, almost all the music that she and Rachel Elkind composed for *The Shining* was unused by director Stanley Kubrick. It did not appear in the film. Of the three films, *Tron* is the one in which audiences can hear the most of Carlos's original compositions.

Which choice best states the main idea of the text?

- A) Of the three films for which Carlos is credited, *Tron* features the most original music from her.
- B) The director of *The Shining* used most of the music that Carlos composed for it.
- C) Beethoven is widely considered to be a more important composer than Carlos.
- D) Carlos is a notable innovator among film composers in the 1970s and 1980s.

#25

ID: 881ba6f1

Eighteenth-century economist Adam Smith is famed for his metaphor of the invisible hand, which he putatively used to illustrate a robust model of how individuals produce aggregate benefits by pursuing their own economic interests. Note “putatively”: as Gavin Kennedy has shown, Smith deploys this metaphor only once in his economic writings—to make a narrow point about the then-dominant economic theory of mercantilism—and it was largely ignored until some twentieth-century economists eager to secure an intellectual pedigree for their views elevated it to a fully-fledged paradigm.

Which choice best states the main idea of the text?

- A) Although Smith is famed for his metaphor of the invisible hand, the metaphor was largely ignored until economists in the twentieth century came to realize that the metaphor was a robust model that anticipated their own views.
- B) Some twentieth-century economists gave Smith’s metaphor of the invisible hand a significance it does not have in Smith’s work, but it is nevertheless a useful model of how individuals produce aggregate benefits by pursuing their own economic interests.
- C) Smith’s metaphor of the invisible hand has been interpreted as a model of how individuals acting in their own interest produce aggregate benefits, but it was intended as a subtle critique of the economic theory of mercantilism.
- D) The reputation of Smith’s metaphor of the invisible hand is not due to the importance of the metaphor in Smith’s work but rather to the promotion of the metaphor by some later economists for their own ends.

#26

ID: 5eda42a3

The following text is from Maggie Pogue Johnson’s 1910 poem “Poet of Our Race.” In this poem, the speaker is addressing Paul Laurence Dunbar, a Black author.

Thou, with stroke of mighty pen,
 Hast told of joy and mirth,
 And read the hearts and souls of men
 As cradled from their birth.

The language of the flowers,
 Thou hast read them all,
 And e’en the little brook
 Responded to thy call.

Which choice best states the main purpose of the text?

- A) To praise a certain writer for being especially perceptive regarding people and nature
- B) To establish that a certain writer has read extensively about a variety of topics
- C) To call attention to a certain writer’s careful and elaborately detailed writing process
- D) To recount fond memories of an afternoon spent in nature with a certain writer

#27

ID: a12a83ce

The following text is from William Shakespeare's play *The Tempest*, first performed in 1611. Miranda has lived on an island with her father, Prospero, since she was three years old. Prospero has stated that Miranda likely does not remember anything other than her life on the island.

MIRANDA: 'Tis far off,

And rather like a dream than an assurance

That my remembrance warrants. Had I not

Four or five women once that tended me?

PROSPERO: Thou hadst, and more, Miranda. But how is it

That this lives in thy mind? What seest thou else

In the dark backward and abysm of time?

If thou remember'st ought ere thou camest here,

How thou camest here thou mayst.

In the text, which point does Prospero most directly make about Miranda and her memories?

- A) Miranda's reminiscences about her early childhood have a melancholy quality that betrays her discontented view of her current circumstances.
- B) Miranda's doubts about the accuracy of one recollection of a place other than the island are clouding her judgment and seem to be making her reluctant to explore her recollection of traveling to the island.
- C) Miranda's ability to summon details of an experience she had before arriving on the island suggests that she may also be able to summon details of her arrival on the island.
- D) Miranda's impression of a scene is vague because she is remembering a scenario she had daydreamed about as a child rather than a scenario that had occurred in reality.

#28

ID: 16ce90d9

In 2018, scientists discovered an immense aggregation of *Muusoctopus robustus* (pearl octopuses) along a hydrothermal vent 3,200 meters beneath the ocean's surface. Water temperatures at this site—named the Octopus Garden—climb as high as 11°C, much warmer than the ambient 1.6°C typical at this depth. Based on observations made over three years, scientists concluded that temperatures at the site likely confer reproductive benefits and that the site is used exclusively for reproduction—6,000 *M. robustus* adults, hatchlings, and eggs were observed at the garden, but no juveniles were present.

Which statement about *M. robustus* and the Octopus Garden is best supported by the text?

- A) *M. robustus* leave the Octopus Garden upon reaching an intermediary stage of development.
- B) The *M. robustus* population at the Octopus Garden remains stable despite variations in water temperature.
- C) *M. robustus* nests in the Octopus Garden contain on average fewer but larger eggs than nests at similar ocean depths.
- D) The Octopus Garden provides an ideal feeding ground for *M. robustus* hatchlings.

#29

ID: d2e0cba5

In a study of new technology adoption, Davit Marikyan et al. examined negative disconfirmation (which occurs when experiences fall short of one's expectations) to determine whether it could lead to positive outcomes for users. The team focused on established users of "smart home" technology, which presents inherent utilization challenges but tends to attract users with high expectations, often leading to feelings of dissonance. The researchers found that many users employed cognitive mechanisms to mitigate those feelings, ultimately reversing their initial sense of disappointment.

Which choice best states the main idea of the text?

- A) Research suggests that most users of smart home technology will not achieve a feeling of satisfaction given the utilization challenges of such technology.
- B) Although most smart home technology is aimed at meeting or exceeding users' high expectations, those expectations in general remain poorly understood.
- C) Research suggests that users with high expectations for a new technology can feel content with that technology even after experiencing negative disconfirmation.
- D) Although negative disconfirmation has often been studied, little is known about the cognitive mechanisms shaping users' reactions to it in the context of new technology adoption.

#30

ID: 7c9a65bb

Optical tweezers are specialized scientific tools—particularly useful in biology and medicine—that use high-powered beams of light to trap and manipulate minuscule particles for study. Use of the tool has led to several scientific and medical breakthroughs over the last few decades, but the particles are often under prolonged exposure to the intense heat of the light beams. To overcome the risk of overheating, and thereby damage, researchers sometimes attach nano-sized glass beads to particles, allowing the light to focus on the beads instead of the particles.

Based on the text, what is one advantage of attaching glass beads to particles when using optical tweezers?

- A) It decreases the time it takes for the optical tweezers to locate and capture the particles.
- B) It facilitates the maneuvering of particles without directly heating the particles themselves.
- C) It allows researchers to use weaker light beams to manipulate particles.
- D) It adds a material to which particles can transfer any heat absorbed from the optical tweezers' light beam.

#31

ID: 6762772f

Artificial leaves are a developing renewable energy technology that mimics the process of photosynthesis in plants. These devices are silicon-based solar cells coated in chemical catalysts that activate reactions that split water molecules into hydrogen and oxygen gas. The technology, while generating lots of interest, is not yet commercially viable as a large-scale energy source. To meet this challenge, scientists from many fields are researching ways to store, transport, and distribute the energy the devices produce while other scientists are working to improve the cost and efficiency of the devices.

Which choice best states the main idea of the text?

- A) Continued research and development in artificial-leaf technology is needed before the devices can be widely used as an energy source.
- B) The recent increase in the commercial use of artificial leaves as an energy source has encouraged many scientists to research ways to improve the technology.
- C) Artificial leaves split water molecules into oxygen and hydrogen gas using catalysts more efficiently than plants do using the process of photosynthesis.
- D) Artificial leaves were developed to mimic the natural process of photosynthesis in plants in order to store energy for long-term commercial use.

#32

ID: 303537cf

The following text is adapted from Lewis Carroll's 1889 satirical novel *Sylvie and Bruno*. A crowd has gathered outside a room belonging to the Warden, an official who reports to the Lord Chancellor.

One man, who was more excited than the rest, flung his hat high into the air, and shouted (as well as I could make out) "Who roar for the Sub-Warden?" Everybody roared, but whether it was for the Sub-Warden, or not, did not clearly appear: some were shouting "Bread!" and some "Taxes!", but no one seemed to know what it was they really wanted.

All this I saw from the open window of the Warden's breakfast-saloon, looking across the shoulder of the Lord Chancellor.

"What can it all mean?" he kept repeating to himself. "I never heard such shouting before—and at this time of the morning, too! And with such unanimity!"

Based on the text, how does the Lord Chancellor respond to the crowd?

- A) He asks about the meaning of the crowd's shouting, even though he claims to know what the crowd wants.
- B) He indicates a desire to speak to the crowd, even though the crowd has asked to speak to the Sub-Warden.
- C) He expresses sympathy for the crowd's demands, even though the crowd's shouting annoys him.
- D) He describes the crowd as being united, even though the crowd clearly appears otherwise.

#33

ID: a3fb5e77

Some animal-behavior studies involve observing wild animals in their natural habitat, and some involve capturing wild animals and observing them in a laboratory. Each approach has advantages over the other. In wild studies, researchers can more easily presume that the animals are behaving normally, and in lab studies, researchers can more easily control factors that might affect the results. But if, for example, the results from a wild study and a lab study of Western scrub-jays (*Aphelocoma californica*) contradict each other, one or both of the studies must have failed to account for some factor that was relevant to the birds' behavior.

Which choice best states the main idea of the text?

- A) When the results of a natural-habitat study and those from a lab study of a wild animal such as the Western scrub-jay conflict, the study in the natural habitat is more likely than the lab study to have accurate results.
- B) Studying wild animals such as the Western scrub-jay in both their natural habitat and lab settings is likely to yield conflicting results that researchers cannot fully resolve.
- C) Wild animals such as the Western scrub-jay can be effectively studied in their natural habitat and in the lab, but each approach has drawbacks that could affect the accuracy of the findings.
- D) Differing results between natural-habitat and lab studies of wild animals such as the Western scrub-jay are a strong indication that both of the studies had design flaws that affected the accuracy of their results.