



SAT

 CollegeBoard



REAL SAT 2024

READING & WRITING

Reading and Writing

– 27 Questions | 32 minutes –

DIRECTIONS

The questions in this section address a number of important reading and writing skills. Each question includes one or more passages, which may include a table or graph. Read each passage and question carefully, and then choose the best answer to the question based on the passage(s).

All questions in this section are multiple-choice with four answer choices. Each question has a single best answer.

1

The following text is from Rudolfo Anaya's 1972 novel *Bless Me, Ultima*. The young narrator is eating breakfast with his two sisters in their home in rural New Mexico.

I sat across the table from Deborah and Teresa and ate my atole and the hot tortilla with butter. I said very little. I usually spoke very little to my two sisters. They were older than I and they were very close. They usually spent the entire day in the attic, playing dolls and giggling. I did not concern myself with those things.

As used in the text, what does the phrase "concern myself with" most nearly mean?

- A craft
- B get angry about
- C care about
- D earn

2

The percentage of US forest land that a 2023 federal report identified as being either mature or old growth exceeds other recent estimates. Given how little _____ there is among scientists regarding the scope of these categories, this discrepancy shouldn't be surprising: forest researchers regularly dispute one another's classifications.

Which choice completes the text with the most logical and precise word or phrase?

- A interest
- B deliberation
- C vigilance
- D consensus

3

Karam Kang has demonstrated that lobbying does little to alter probability that a particular energy policy under consideration by the United States Congress will be enacted, but lobbying is not as _____ finding seems to suggest. As Kang herself notes, lobbying can shape which policy proposals members of Congress bring forward for consideration in the first place.

Which choice completes the text with the most logical and precise word or phrase?

- A counterproductive
- B cynical
- C biased
- D ineffectual

4

Though it does not guarantee a book's commercial success, _____ can play a big role in that success – a well-executed marketing campaign helped to make Danielle Steel's novel *The Gift*, the fourth-best-selling novel of 1994.

Which choice completes the text with the most logical and precise word or phrase?

- A originality
- B publicity
- C complexity
- D practicality

5

People sometimes dismiss a claim if it comes from a source they regard as self-interested, but from a strictly logical perspective, the source of a claim is ____: it has no direct bearing on whether the claim is true.

Which choice completes the text with the most logical and precise word or phrase?

- A implicit
- B indisputable
- C indistinct
- D irrelevant

6

When people think of dinosaurs with feathers, they typically think of winged dinosaurs, such as the four-winged Microraptor. However, many dinosaurs that didn't have wings also had feathers on their bodies. For instance, research indicates that the wingless, speedy Ornithomimus likely had feathers.

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

- A It reveals that the dinosaurs mentioned earlier in the text used their feathers for an important purpose.
- B It gives an example of a dinosaur with the characteristics mentioned earlier in the text.
- C It defines a term related to the type of dinosaur feathers mentioned earlier in the text.
- D It indicates that the dinosaurs mentioned earlier in the text weren't the only ones that had feathers.

7

The following text is from Annie Dillard's 1987 autobiographical novel *An American Childhood*. The narrator is a young girl living in Pittsburgh.

I walked. My mother had given me the freedom of the streets as soon as I could say our telephone number. I walked and memorized the neighborhood. I made a mental map and located myself upon it. At night in bed I rehearsed the small world's scheme and set challenges: Find the store using backyards only. Imagine a route from the school to my friend's house.

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

- A It describes the narrator trying to memorize her telephone number.
- B It provides examples of what the narrator thinks about at night.
- C It gives directions to the narrator's favorite local store.
- D It portrays the narrator's relationship with her mother.

8

Gus Edwards's atmospheric play *Black Body Blues* was produced in 1978 by the groundbreaking Negro Ensemble Company (NEC). NEC cofounder Douglas Turner Ward, who worked as an actor, director, and playwright, had met actor and producer Robert Hooks while they were performing in a 1960 touring production of Lorraine Hansberry's play *A Raisin in the Sun*. Together, they envisioned a theater company that would nurture and showcase the work of Black theater professionals. Since NEC's founding in 1967, its workshops and performances have given Black playwrights, including Edwards, a forum for their compelling stories.

Which choice best states the main purpose of the text?

- A To show how the play *A Raisin in the Sun* influenced Ward and Hooks.
- B To bring attention to a work by Gus Edwards.
- C To describe how Ward and Hooks's creative partnership changed over time.
- D To discuss the origin and importance of the NEC.

9

The food industry has long used thermal technologies to preserve food in large batches. Recent advancements in infrared heating were made through research in Mexico on the preservation of bean flour. Infrared heating is generally considered to be an improvement over more conventional thermal preservation methods: whereas conventional methods transfer energy from the surface of a food to its interior, infrared heating uses high-intensity infrared light to generate heat within the food itself, thus reducing industrial cooking times.

Based on the text, what is one disadvantage of some conventional thermal methods?

- A They are especially vulnerable to technological breakdowns.
- B They are only effective in heating foods that are lightweight and small in size.
- C Their cooking times are longer than those of other methods.
- D They require more energy than other methods do.

10

“Cocoa” is an example of a loanword – that is, a word that originated in one language and was later adopted by another. The word came to English indirectly from cacao, the Spanish word for the plant that chocolate is made from. Spanish had borrowed it from Nahuatl, an Indigenous language of Central Mexico, in which the word’s original form is cacahuatl. “Iguana” is also Indigenous in origin and entered English through Spanish. But in this case, the original source was Taino, a language of the Caribbean islands, in which the word for the group of related lizard species is twana.

The author makes which point about the Spanish language?

- A It has served as a medium through which Indigenous languages have influenced English.
- B Its contribution to English vocabulary roughly equals the collective contribution by Indigenous languages.
- C It has borrowed words from Indigenous languages and contributed words to them.
- D It adopted Nahuatl and Taino words in approximately equal numbers.

11

Total Areas of Five Tribal Nations around the United States

Tribal Nation	Location	Area (square miles)
Cherokee Nation	Oklahoma	6,963
Northern Cheyenne Tribe	Montana	707
Mandan, Hidatsa, and Arikara Nation	North Dakota	1,583
Colville Tribes	Washington	2,185
Muscogee Nation	Oklahoma	4,867

In terms of total area, the Navajo Nation is the largest tribal nation in the United States. It covers 24,425 square miles in Arizona, Colorado, and New Mexico. Most tribal nations in the US are much smaller. For example, the total area of the Muscogee Nation in Oklahoma is 4,867 square miles. And in Washington, the total area of the Colville Tribes is _____.

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

- A 2,185 square miles
- B 707 square miles
- C 6,963 square miles
- D 1,583 square miles

12

Millions of Metric Tons of Copper Mined in 1995 and 2020

Country	1995	2020
Poland	0.38	0.39
Kazakhstan	0.26	0.55
Chile	2.49	5.73
Canada	0.73	0.59

While doing research for a paper about copper mining, a student finds a table with information about four different countries. The student notes that the country that mined 0.55 million metric tons of copper in 2020 had mined _____.

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

- A 0.26 million metric tons of copper in 1995
- B 0.59 million metric tons of copper in 1995
- C 2.49 million metric tons of copper in 1995
- D 0.38 million metric tons of copper in 1995

13

"A Pair of Silk Stockings" is an 1897 short story written by Kate Chopin. In the story, Chopin suggests that the protagonist, Mrs. Sommers, experiences a shift in her sense of self as a result of putting on certain articles of clothing, writing, _____.

Which quotation from "A Pair of Silk Stockings" most effectively illustrates the claim?

A

"Mrs. Sommers was one who knew the value of bargains; who could stand for hours making her way inch by inch toward the desired object that was selling below cost."

B

"She held back her skirts and turned her feet one way and her head another way as she glanced down at the polished pointed-tipped boots."

C

"She would buy so and so many yards of percale for new shirt waists for the boys and Janie and Mag."

D

"Her stockings and boots and well-fitting gloves had worked marvels in her bearing – had given her a feeling of assurance, a sense of belonging to the well-dressed multitude."

14

**Average Hours Worked per Person per Year
in 1950 and 2017**

Country	1995	2017	Change in hours	Percent change in hours
Argentina	2,034	1,692	- 342	- 17%
Ireland	2,419	1,746	- 674	- 28%
Mexico	2,432	2,255	- 177	- 7%
United Kingdom	2,184	1,670	- 514	- 24%

(Calculations may be inexact due to rounding)

A student in an economics course is examining the decline since 1950 in average hours worked per person per year in various nations due to both increased productivity and the adoption of policies that limit working hours. The first task in this investigation is to determine how the decline in Argentina compares to that in other countries. The student finds that _____.

Which choice most effectively uses data from the table to complete the student's conclusion?

A

the decline in number of hours worked was greater in Argentina than it was in Ireland, the United Kingdom, or Mexico

B

while the number of hours worked rose in Argentina between 1950 and 2017, it declined in Ireland, the United Kingdom, and Mexico

C

though the percent decrease in hours worked in Argentina was greater than that in Ireland and Mexico, it was less than that in the United Kingdom

D

though the percent decrease in hours worked in Argentina was less than that in Ireland and the United Kingdom, it was greater than that in Mexico

15

The *Mammillaria cactus M. guerrerensis* occurs naturally only in the state of Guerrero in Mexico, and the smallness of its range makes it especially vulnerable to extinction. The traditional single-species approach to conservation emphasizes the need to focus on individual species most at risk, like *M. guerrerensis*, but recently, conservationists have argued that an ecosystem-based approach that incorporates the many interactions between the climate, terrain, and various species of a given geographical area may lead to better outcomes for all the species in a given location. If this view is correct, the single-species approach to the conservation of *M. guerrerensis* could thus _____.

Which choice most logically completes the text?

- A lead to a better understanding of how the distribution of *Mammillaria* species throughout Mexico has affected their survival
- B allow conservationists to better consider how climatic changes affecting Guerrero may reduce the number of species competing with *M. guerrerensis*
- C erroneously shift the focus of conservation efforts away from *M. guerrerensis* itself
- D fail to consider the ways in which the survival of *M. guerrerensis* may be influenced by changes in the populations of other species that inhabit Guerrero

16

It is widely known that New York City's Museum of Modern Art (MoMA) _____ a vast collection of oil paintings, including Paul Klee's *In the Grass* and Fernand Léger's *Contrast of Forms*.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A houses
- B to have housed
- C housing
- D to house

17

An accomplished birder might be able to spot thousands of different species over the course of a career, from *Amadina erythrocephala* to *Arborophila rufogularis*, but no birder has ever achieved the ultimate _____ an in-person glimpse of all 10,000-plus species of birds.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A goal catching
- B goal. Catching
- C goal: catching
- D goal; catching

18

Today, the *Michelin Guide* is widely known as the arbiter of fine dining with its coveted 3-star rating being awarded to top restaurants like *Kitcho Arashiyama* in _____ when brothers Andre and Edouard Michelin created the guide in 1900, it was little more than a marketing gimmick – a way to increase profits for their tire company by encouraging their customers to drive across France, visiting the guide's recommended hotels and restaurants along the way.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A Kyoto; however,
- B Kyoto,
- C Kyoto, however,
- D Kyoto

19

When attempting to determine a fault's seismic history, geophysicists like Dr. Estella Atekwana at the University of Delaware rely in part on data about the fault's physical dimensions and geological ____ the Imperial fault in Imperial County, California, the US Geological Survey compiles such data in several ways: by exchanging information with state geological surveys, by linking maps of the fault with sources that offer detailed descriptions of it, and by maintaining a database of quantitative data such as the fault's length (46 km).

Which choice completes the text so that it conforms to the conventions of Standard English?

- A features for
- B features, for
- C features. For
- D features and for

20

In 1987, chemist Ahmed Zewail devised a novel technique in optical spectroscopy that allowed him to study ultrafast chemical reactions occurring within molecules. Years later, he ____ for this groundbreaking research with the Robert A. Welch Award and the Priestley Medal from the American Chemical Society and hence would become known as the father of femtochemistry.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A had been honored
- B would be honored
- C is honored
- D will be honored

21

For Canada, a member of the North Atlantic Treaty Organization (NATO) since 1949, NATO's principle of collective defense confers both benefits and ____ organization's many members, nations as disparate as the US and Slovenia, are all bound to defend Canada, the reverse is also true.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A obligations: while the
- B obligations; the
- C obligations, while the
- D obligations. The

22

If you could travel in a spaceship to Elara, one of Jupiter's many moons, you'd find a moon with a prograde orbit. This means that Elara orbits Jupiter in the same direction that Jupiter rotates on its axis. ____ at Pasiphae, another Jovian moon, you'd find an example of a retrograde orbit, with the moon revolving around Jupiter in the opposite direction.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A For example,
- B Specifically,
- C In other words,
- D Elsewhere,

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Which choice completes the text with the most logical transition?

- A For example,
- B Specifically,
- C In other words,
- D Elsewhere

23

While researching a topic, a student has taken the following notes:

- *Scientists have long sought to determine the origin of glass in Chile's Atacama Desert.*
- *A 2017 study concluded that ancient grass fires had melted the area's sandy soil into glass.*
- *In 2021, a different study revealed that the mineral signatures of glass samples were consistent with the mineral signatures of comet samples collected by NASA.*
- *That study concluded that the glass had formed as a result of a cometary explosion close to the desert's surface.*

The student wants to describe how scientific understanding about the glass's origin has evolved. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A** Mineral signatures of glass samples are consistent with those of comet samples collected by NASA, according to new research.
- B** A 2017 study concluded that ancient grass fires had caused the glass's formation, but new research suggests that the glass formed as a result of a cometary explosion close to the desert's surface.
- C** Scientists have long sought to determine the origin of the glass, with one study concluding that it formed when ancient grass fires melted the area's sandy soil.
- D** Other answer

24

While researching a topic, a student has taken the following notes:

- *Maya Lin is a US artist known for her memorials and large-scale installation artworks.*
- *She became famous in 1982 when she completed the Vietnam Veterans Memorial, which consists of two 246-foot granite walls.*
- *She completed Water Line in 2006.*
- *It is an installation composed of aluminum tubing that fills an entire gallery room.*
- *She completed Seven Earth Mountain in 2015.*
- *It is an installation composed of soil that fills an entire gallery room.*

Which choice most effectively uses information from the given sentences to emphasize a difference between *Water Line* and *Seven Earth Mountain*?

- A** Maya Lin's *Water Line* is composed of aluminum tubing; *Seven Earth Mountain*, by contrast, is composed of soil.
- B** Maya Lin is known for her memorials and installation art, such as *Water Line* and *Seven Earth Mountain*.
- C** After completing the *Vietnam Veterans Memorial*, Maya Lin completed *Water Line*, another large-scale work.
- D** The sprawling size of Maya Lin's *Vietnam Veterans Memorial* is echoed in *Water Line*, a work made of aluminum tubing that fills an entire gallery room.

25

While researching a topic, a student has taken the following notes:

- The Peloncillo-Pan Duro Mountains are a mountain range located in northwestern Mexico.
- The range is one of the dozens of “sky islands” in the southwestern US and northwestern Mexico.
- A sky island is an isolated mountain range whose environment differs drastically from that of the surrounding lowlands.
- The US Forest Service (USFS) said, “The mountains are ‘islands’ surrounded by deserts that are ‘seas’.”
- The USFS said, “Each Sky Island is a unique ecosystem.”

The student wants to explain what a sky island is. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A

The Peloncillo-Pan Duro Mountains are an isolated mountain range located in northwestern Mexico whose environment differs drastically from that of the surrounding lowlands.

B

A sky island is an isolated mountain range, such as the Peloncillo-Pan Duro Mountains in northwestern Mexico, whose environment differs drastically from that of the surrounding lowlands.

C

The Peloncillo-Pan Duro Mountains, which are considered to be a sky island, are located in northwestern Mexico.

D

The USFS considers the Peloncillo-Pan Duro Mountains to be a “unique ecosystem.”

26

While researching a topic, a student has taken the following notes:

- The Paralympic Games are a series of international sporting events involving athletes with an impairment.
- A gold medal indicates that an athlete finished in first place.
- Rolf Heinzmann competed as a Paralympic alpine skier from 1980 to 2002.
- He won fourteen medals, twelve of which were gold.
- Daniel Dias competed as a Paralympic swimmer from 2008 to 2020.
- He won thirty-eight medals, twenty-five of which were gold.

Which choice most effectively uses information from the given sentences to emphasize the number of gold medals won by Daniel Dias?

A

In his career as a Paralympic swimmer, Daniel Dias won thirty-eight total medals – twenty-five of them were gold.

B

Both multiple gold medalists, Rolf Heinzmann and Daniel Dias debuted at the Paralympic Games in 1980 and 2008, respectively.

C

At the Paralympic Games, a gold medal indicates a first-place finish, and some accomplished athletes like Rolf Heinzmann have won many.

D

An accomplished Paralympian with thirty-eight total medals, Daniel Dias competed as a swimmer from 2008 to 2020.

27

While researching a topic, a student has taken the following notes:

- *The human tongue contains taste receptors for a rich, savory flavor called umami.*
- *Umami is triggered by the compounds in a variety of foods, including pork and tomato paste.*
- *Participants in a study tasted a sample of macrokelp, a type of brown seaweed.*
- *They rated its umami intensity as moderate.*
- *The participants tasted a sample of ma-konbu, another type of brown seaweed.*
- *They rated its umami intensity as high.*

The student wants to make a generalization about brown seaweed. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A** Macrokelp is a type of brown seaweed, as is ma-konbu.
- B** In a research study, participants tasted samples of macrokelp and ma-konbu, two types of brown seaweed.
- C** Participants in a study rated the umami intensity of various seaweeds.
- D** Some types of brown seaweed trigger umami flavor in human taste buds.

STOP

If you finish before time is called, you may check your work on this module only.
Do not turn to any other module in the test.

Reading and Writing

– 27 Questions | 32 minutes –

DIRECTIONS

The questions in this section address a number of important reading and writing skills. Each question includes one or more passages, which may include a table or graph. Read each passage and question carefully, and then choose the best answer to the question based on the passage(s).

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1

Although Oscar Micheaux's 1920 film *Within Our Gates* and Ossie Davis's 1970 film *Cotton Comes to Hartem* may have had some _____ at the time of their initial release, their place in critics' estimations is now more secure. In 2018, for example, critics for the *New York Times* described the former as "stunning" and the latter as "especially pointed."

Which choice completes the text with the most logical and precise word or phrase?

- A collaborators
- B imitators
- C precursors
- D detractors

2

Political scientists have found that although voters claim to prefer candidates who have nuanced perspectives on issues and who show a willingness to compromise, when asked to compare speeches expressing such views with speeches expressing _____ views, voters tend to regard the unyielding rhetoric of the latter more favorably.

Which choice completes the text with the most logical and precise word or phrase?

- A dogmatic
- B vacillating
- C banal
- D disingenuous

3

A number of recording artists _____ distinctions between Indigenous music and other musical styles. For example, Choctaw singer-songwriter Samantha Crain incorporated elements of Choctaw hymns into folk-pop on her single "When We Remain," and Oji-Cree/Mi'kmaq musician Anachnid combined Indigenous flute and powwow vocals with electronic music on her album *Dreamweaver*.

Which choice completes the text with the most logical and precise word or phrase?

- A disguise
- B reject
- C observe
- D replace

4

Today composer Scott Joplin is mainly celebrated for his catchy ragtime pieces "Maple Leaf Rag" and "The Entertainer." However, by overlooking his less famous works, listeners will miss the full range of Joplin's creativity. For instance, his waltz "Pleasant Moments" and his opera "Treemonisha" skillfully blend ragtime and classical music. These masterpieces deserve as much fame as Joplin's biggest hits.

Which choice best states the main purpose of the text?

- A To argue that more attention should be given to Joplin's lesser-known works.
- B To describe the similarities and differences between ragtime music and opera.
- C To explain how Joplin learned to compose and perform ragtime music.
- D To encourage music lovers to listen to music by many different composers.

5

Desolation Island, first published in 1978, is a novel in Patrick O'Brian's Aubrey/Maturin series, which includes twenty completed books. Some critics have found fault with the abrupt endings of *Desolation Island* and other books in the series, saying that they do not finish conclusively but arbitrarily stop. But other critics argue that the books should not be thought of as discrete texts with traditional beginnings and endings but as a single incredibly long work, similar to other multivolume stories, such as John Galsworthy's *The Forsyte Saga*.

Which choice best states the main purpose of the text?

- A To explain why many critics find the Aubrey/Maturin novels to be remarkably entertaining despite flaws in the novels' structures.
- B To describe a characteristic of the Aubrey/Maturin novels and offer two differing viewpoints on this characteristic.
- C To argue that the Aubrey/Maturin series should have the literary renown of *The Forsyte saga*.
- D To present a reason the unusual structure that O'Brian uses for *Desolation Island* makes it one of his most complex books.

6

Text 1

Isaac Asimov, author of *The Naked Sun* and *Pebble in the Sky*, is highly regarded despite his mediocre writing style. His prose is workmanlike; his characters are flat and discuss ideas rather than emotions. That his work is enjoyable despite this is a testament to his prodigious imagination – even if people read his books only for the ideas, they will have plenty to consider.

Text 2

Asimov is critiqued for his style, but it is wrong to fault a writer for failing to do what he never intended to do. For example, although most of his novel *Foundation* consists of people discussing science and politics and we find out little about his characters' lives, Asimov wanted to convey the vast sweep of human history over centuries, and one of his points is that at such a timescale, individuals don't matter. Thus, his lack of characterization is central to Asimov's thematic aims.

Based on the texts, how would the author of **Text 2** most likely respond to the evaluation of Asimov's writing style in the underlined claim in **Text 1**?

- A By asserting that Asimov's minimal characterization is likely a conscious choice that helps him convey an important idea.
- B By arguing that Asimov's writing style should be judged against the styles of historians rather than those of fiction writers.
- C By agreeing that Asimov's prose is flawed but disagreeing about the quality of his characters.
- D By pointing out that the flatness of Asimov's characters is a feature of *The Naked Sun* and *Pebble in the Sky* but not of *Foundation*.

7

Reyjane P. Oliveira and colleagues relied on historical DNA (hiDNA) – genomic data incidentally preserved in specimens housed in natural history collections – to investigate the evolutionary trajectory of the Malagasy grass genus *Chasechloa*. Although this approach offers unique benefits, such as the ability to ascertain the biogeographical origins of organisms, it remains a relatively underutilized resource because hDNA is often to some extent degraded, a situation not easily remediable under current methodological paradigms and with extant DNA extraction and analysis technologies.

Information in the text best supports which statement about hDNA?

- A It may yield insights that other types of genomic data cannot.
- B It may be underused because of its controversial status among scientists.
- C It has thus far proved valuable mainly to researchers studying flora.
- D It tends to be much more degraded than other types of DNA of comparable age.

8

Meredith F. Protas and colleagues have explored how convergent evolution – a phenomenon that occurs when the same trait evolves independently in two reproductively separate lineages – can result from a genetic mechanism shared by both lineages. Meanwhile, Cynthia C. Steiner and colleagues have investigated how convergence occurs through different genetic mechanisms, but the relative prevalence of convergence through shared and different genetic processes is still poorly understood. This motivated biologists Delbert A. Green II and Cassandra G. Extavour to evaluate both types of convergence in a single study for their 2012 paper.

Which choice best states the main idea of the text?

- A Green and Extavour's study was conducted using data from the studies by Protas and colleagues and Steiner and colleagues.
- B Green and Extavour's study addresses convergent evolution more comprehensively than the studies by Protas and colleagues and Steiner and colleagues do.
- C Both the study by Protas and colleagues and that by Green and Extavour compare convergence through shared genetic mechanisms to convergence through different genetic mechanisms.
- D Before Green and Extavour's study, convergent evolution was assumed to require a shared genetic mechanism between two lineages that share the trait.

9

Over time, marine mollusks called nautilus continually add segments to their shells, and the chemical composition of each segment is influenced by the available materials in the surrounding water when the segment forms. Paleontologist Amane Tajika and colleagues analyzed the septa (the walls between shell chambers) of one male (samples labeled "M") and one female (samples labeled "F") nautilus, finding that sample M06 had the same concentration of oxygen-18 as did water approximately 120 meters deep and that the oxygen-18 concentration in sample F14 matched that of water at approximately 385 meters deep. Tajika et al. concluded that sample M06 formed at a higher point in the water column than did F14.

Which finding, if true, would most directly support the researchers' conclusion?

- A In nautilus, sex predicts septa growth rate more strongly than does oxygen-18 concentration in the surrounding water.
- B Regardless of sex, nautilus spend most of their lives at depths of 50 meters or greater, where oxygen 18 concentrations typically differ from those higher in the water column.
- C Male nautilus tend to show higher concentrations of oxygen-18 than do female nautilus inhabiting the same point in the water column.
- D Among nautilus, there is no effect of sex on the uptake of oxygen-18 from water or its deposition in septa.

10

Callie W. Babbitt, Hema Madaka, and colleagues assembled a database of materials used in consumer electronics by studying products in the lab and by gathering data from similar product studies. The team gave each of these studies a rating for level of traceability (with a higher rating for clearer descriptions of procedures) and for category consistency (with a higher rating for using materials categories more closely aligned with the categories in the team's database). Based on these ratings, a second research team concluded that the methodology was better explained in a study by Greg L. Kozak and Gregory A. Keoleian than it was in a study by Martin Streicher-Porte and colleagues.

Which finding, if true, would most directly challenge the second research team's conclusion?

- A The study by Kozak and Keoleian had a lower consistency rating than the study by Streicher-Porte and colleagues did.
- B The study by Kozak and Keoleian had a high consistency rating and a high traceability rating.
- C The study by Streicher-Porte and colleagues had a medium consistency rating and a medium traceability rating.
- D The study by Kozak and Keoleian had a lower traceability rating than the study by Streicher-Porte and colleagues did.

11

Periods of subfreezing temperatures in Alaska have been growing shorter in response to climate warming, potentially enabling increased carbon dioxide (CO₂) absorption through greater productivity of creeping dogwood (*Cornus canadensis*) plants and other vegetation, but also potentially enabling Early snow melt reduces the amount of soil moisture available for the increased CO₂ output through greater heterotrophic respiration (CO₂ generated by the activity of soil microorganisms). Hydrologist Yonghong Yi and her colleagues developed a model incorporating numerous inputs – years of solar radiation and snow cover data among them – to evaluate the effects of warming on the CO₂ balance in Alaska, concluding that net CO₂ is likely to increase if warming hastens spring snow melt.

Which finding, if true, would most directly support the researchers' conclusion?

- A Early snow melt reduces the amount of soil moisture available for the growth of plant species such as *C. canadensis*, and it raises the rate of heterotrophic respiration.
- B Early snow melt extends the period in which plant species such as *C. canadensis* can absorb CO₂, but has no effect on the rate of heterotrophic respiration.
- C Early snow melt slows the growth of plant species such as *C. canadensis* by reducing soil insulation, and it suppresses heterotrophic respiration.
- D Early snow melt amplifies the effect of solar radiation on the growth of plant species such as *C. canadensis* and on the rate of heterotrophic respiration.

12

In Armenia, use of solid fuel (e.g., coal, wood) as a share of total household about household fuel use fell by approximately 90 percent between 2000 and 2018; such shifts are typically explained by appeal to the energy ladder, a model holding that fuel choice is mediated mainly by household income (specifically, high-technology fuels displace solid fuels as incomes rise). Boukary Ouedraogo's study of fuel use in Burkina Faso shows how reductive this model is, however: although income of course constrained fuel choice, several factors, including the frequency with which certain dishes are cooked, influenced decisions.

Based on the text, the author would most likely agree with which statement about household income?

- A It constrains the amount of fuel households use but not the type of fuel they use.
- B It affects household fuel choice but not for the reasons assumed by the energy ladder model.
- C It can explain some but not all of the differences in fuel choice across households.
- D It is often said to influence household fuel choice but actually does not.

13

The Socio-Economic Panel (SOEP) is a longitudinal study surveying approximately 12,000 individuals in Germany to glean extended trends in childhood development. To carry out the necessary sampling of the population over many years, SOEP needs extensive financial support, but this method provides valuable insights into causal relationships. However, when questions of causation are irrelevant, as with a transportation study seeking only to reveal the number of people per day who use a city's public transportation system, longitudinal methods are unnecessary, and so ____.

Which choice most logically completes the text?

- A the expense of SOEP is likely greater than the cost of longitudinal studies of transportation
- B conclusions drawn from SOEP are likely to be more authoritative than those from the transportation study
- C longitudinal methods are suitable for studies of childhood development but ought to be avoided for those of transportation
- D the success of the transportation study likely requires significantly less financial outlay than that needed for SOEP

14

The many editions of James Joyce's 1922 novel *Ulysses* are not textually identical, and scholars debate which versions reflect Joyce's authorial intent. One no longer widely read edition is the 1984 "critical and synoptics edition" edited by Hans Walter Gabler, which followed French and German editorial theories rather than editorial traditions of the United States and (United Kingdom and which was later found to have introduced errors due to Gabler's choice to consult facsimile manuscripts rather than using only originals. However, few Joyce scholars worldwide had expertise in such textual issues, and most of those who did worked on the edition with Gabler. So, it is unsurprising that initial scholarly reviews of the 1984 edition were mostly ____.

Which choice most logically completes the text?

- A negative, since any scholar with expertise in editorial theories of the United States and United Kingdom as well as French and German editorial theories most likely worked with Gabler on the 1984 edition and would therefore not review it
- B negative, since those Joyce scholars with the necessary expertise to write a review of the 1984 edition would be aware that facsimile manuscripts cannot be produced with a high enough fidelity to the original to ensure that relying on them will not introduce editorial errors
- C positive, since scholars who reviewed the 1984 edition were unaffiliated with its production and were mostly either Joyce specialists who were largely unfamiliar with editorial theories and practices or specialists in such theories and practices who were insufficiently familiar with Joyce
- D Other answer

15

Arthurian legends (tales related to the character of King Arthur) derive from many sources, such as *Annales Cambriae*, composed around 970, and the *Mabinogion* from the 12th and 13th centuries. One of the most significant sources, Geoffrey of Monmouth's *History of the Kings of Britain*, was written in Latin in the 1130s; some material from it was later adapted by the Norman poet Wace into the *Roman de Brut* in 1155. But while no source before 1155 includes references to the famous Round Table at which Arthur's knights assembled, both the *Roman de Brut* and Sir Thomas Malory's 15th century compilation of Arthurian legends, *Le Morte d'Arthur* do. It can therefore be inferred that _____.

Which choice most logically completes the text?

- A *Le Morte d'Arthur* is more historically accurate than *History*, because the *Mabinogion* had not been written when Geoffrey of Monmouth was writing his work
- B Geoffrey of Monmouth's accounts of Arthurian legends in his *History* are more similar overall in content to the accounts in the *Mabinogion* than they are to the accounts in *Roman de Brut*.
- C Malory did not use *Annales Cambriae* as a source for information he presented about the Round Table.
- D Geoffrey of Monmouth was unaware of stories of the Round Table when composing his *History*, though historians know that works containing such stories were available to him.

16

In Puerto Rico, it's not unusual for a city or town to be known by a nickname that corresponds to one of its notable features, like landscape, climate, famous residents, or chief exports. For example, the Puerto Rican municipality of Florida has also been called "the Town of Cayenalisa Pineapple," a nickname that alludes to what the area is well _____ the pineapple, one of its most popular exports.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A known: for
- B known for:
- C known for
- D known for;

17

A region of the Soviet Union encompassing the present-day city of Tiraspol, Moldova, the Romanian-speaking Moldavian Autonomous Soviet Socialist Republic was in fact only nominally autonomous. President Mikhail Gorbachev's reforms, by helping the Moldavian Republic and other Soviet republics established along ethnolinguistic lines assert their prerogatives, _____ to the Soviet Union's breakup.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A which contributed
- B contributed
- C having contributed
- D contributing

18

Minerals can be classified by how much light passes through them. For example, all (or almost all) light passes through zorite, which is classified as _____ only some light to pass through; amesite is instead classified as translucent.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A transparent, allowing
- B transparent allowing
- C transparent. Allowing
- D transparent and allowing

19

The artist Jean-Honore Fragonard's painting *The Progress of Love: Meeting*, symbolically _____ to portray the sense of excitement that infuses new relationships, is a highly regarded example of allegory.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A functioning
- B has functioned
- C functions
- D was functioning

20

The relationship between genomes and epigenomes reveals how cells with identical DNA develop different _____ whereas the genome in each cell contains a complete DNA sequence, the epigenome consists of chemical compounds that determine which traits in the sequence will be expressed.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A functions:
- B functions and,
- C functions
- D functions,

21

That the geographic center of North America lay in the state of North Dakota was conceded by all _____ establishing its precise coordinates proved more divisive.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A involved,
- B involved;
- C involved:
- D involved

22

Monument 61 is the name given to a 13-ton stone statue of a human head that was created during the ancient Olmec civilization. It was discovered in Veracruz, Mexico, at the San Lorenzo archaeological site. _____ at the La Venta site in the state of Tabasco, another colossal head statue called Monument 4 was discovered.

Which choice completes the text with the most logical transition?

- A As a result,
- B Specifically,
- C For example,
- D Elsewhere,

23

In the South Asian country of Sri Lanka, the percentage of the population living in cities increased from 18.3% to 18.7% between 2015 and 2020; this upward trend in urbanization was seen throughout that part of the continent. _____ from 2015 to 2020, the overall percentage of the South Asian population living in cities rose from 34.5% to 36.6%.

Which choice completes the text with the most logical transition?

- A Nevertheless,
- B Indeed,
- C In reality,
- D Later,

24

Ugandan American professor Peter Nazareth believed that Elvis Presley's music is best understood not as a homogeneous collection but as an anthology (because Elvis showcased the contributions of a wide range of gospel, blues, and rock artists). _____ Nazareth entitled his college course on Elvis and his music, which focused on Elvis's many musical influences, "Elvis as Anthology."

Which choice completes the text with the most logical transition?

- A In sum,
- B To that end,
- C In addition,
- D That is,

25

While researching a topic, a student has taken the following notes:

- A copyright prevents a book's contents from being reproduced (published) without permission from the copyright holder.
- When a book's copyright expires, the book enters the public domain.
- Public domain books can be legally reproduced by anyone.
- *The Mother's Recompense* is a novel by Edith Wharton.
- It was published in 1925 and entered the public domain on January 1, 2021 (ninety-six years later).

Which choice most effectively uses information from the given sentences to explain why *The Mother's Recompense* entered the public domain?

- A Once *The Mother's Recompense* entered the public domain, anyone could publish its contents.
- B *The Mother's Recompense*, a novel by Edith Wharton, is freely available to the public.
- C Before *The Mother's Recompense* entered the public domain only its copyright holder could give permission for others to reproduce its contents.
- D The copyright to *The Mother's Recompense* expired in 2021, causing the novel to enter the public domain.

26

While researching a topic, a student has taken the following notes:

- Alfajayucan is a municipality in the state of Hidalgo, Mexico.
- Municipalities are governmental regions responsible for providing many public services to their residents.
- She completed Water Line in 2006.
- One service they provide is water treatment.
- Alfajayucan's population was 19,162 in 2020.
- Hidalgo is divided into 84 municipalities.

The student wants to provide a specific example of what municipalities provide. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A Alfajayucan is one of 84 municipalities in Hidalgo, Mexico.
- B In 2020, the municipality of Alfajayucan had a population of 19,162.
- C The municipality Alfajayucan in Hidalgo is responsible for providing many public services.
- D Water treatment is just one of the many public services that municipalities provide.

27

While researching a topic, a student has taken the following notes:

- *The Mohs scale of mineral hardness is a ten-point scale that orders minerals by hardness based on their ability to scratch other minerals.*
- *Minerals with larger numbers are harder than minerals with smaller numbers and can leave visible scratches on them.*
- *Minerals with smaller numbers are softer than minerals with larger numbers and cannot leave visible scratches on them.*
- *The mineral apatite has a Mohs scale number of 5.*
- *The mineral topaz has a Mohs scale number of 8.*
- *The mineral diamond has a Mohs scale number of 10.*

The student wants to compare the hardness of apatite and diamond. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A** A mineral with a Mohs number of 8, like topaz, is harder than one with a Mohs number of 5, like apatite.
- B** The Mohs scale of mineral hardness can be used to order topaz, apatite, and diamond by their ability to scratch other minerals.
- C** Diamond can leave visible scratches on apatite, which means that diamond is harder than apatite.
- D** Diamond can leave visible scratches on topaz, which is why diamond has a higher number than topaz on the Mohs scale of mineral hardness.

STOP

If you finish before time is called, you may check your work on this module only.
Do not turn to any other module in the test.

1	C
2	D
3	D
4	B
5	D
6	D
7	B
8	D
9	C
10	A
11	A
12	A
13	D
14	D
15	D
16	A
17	C
18	A
19	C
20	B
21	A
22	D
23	B
24	A
25	B
26	A
27	D

rw1

READING AND WRITING

MODULE 1

MODULE 2



1	D
2	A
3	B
4	A
5	B
6	A
7	A
8	B
9	B
10	D
11	A
12	C
13	D
14	C
15	C
16	B
17	B
18	C
19	A
20	A
21	B
22	D
23	B
24	B
25	D
26	D
27	C

RW 2

SAT 2024 May Digital

section 1

module 1:

Reading and writing

The following text is from Mark Oshiro's 2018 novel *Anger Is a Gift*. In the novel, Moss and his friends are on a subway train in Northern California.

Lights from the outside world then filled the train car as it rose out of the ground and climbed the elevated track. As long as Moss had lived in West Oakland, he'd never tired of this specific view, so he pointed toward the windows. "Check it," he said, and the Port of Oakland began to pass by them.

©2018 by Mark Oshiro

The following text is adapted from John Matheus's 1925 short story "Fog."

The fog extended its tentacles over city and river, gradually obliterating traces of familiar landscapes. At five-thirty the old Panhandle bridge, supported by massive sandstone pillars, stalwart, as when erected fifty years before to serve a generation now passed behind the portals of life, had become a spectral outline against the sky.

Although the government of the Soviet Union attempted to _____ Georgi Vladimov's novel *Faithful Ruslan*, copies of the book circulated in secret among readers in several parts of the country.

Although the clustering of information technology firms in Northern California is often cited as typical of industrial agglomeration, Giulia Faggio et al. use UK data to show that the mix of factors driving the phenomenon is _____ across industries: while the potential for knowledge spillovers can prompt agglomeration, collocation among tube manufacturers occurs for different reasons.

1

Mark for Review

ABC

As used in the text, what does the word "specific" most nearly mean?

(A) Imaginary

(B) Correct

(C) Energetic

(D) Particular

2

Mark for Review

ABC

As used in the text, what does the word "supported" most nearly mean?

(A) Cherished

(B) Defended

(C) Held up

(D) Improved on

3

Mark for Review

ABC

Which choice completes the text with the most logical and precise word or phrase?

(A) replicate

(B) import

(C) suppress

(D) critique

4

Mark for Review

ABC

Which choice completes the text with the most logical and precise word or phrase?

(A) credible

(B) heterogeneous

(C) imperative

(D) decisive

The following text is from Anne Spencer's 1922 poem "Translation."

We trekked into a far country,
My friend and I.
Our deeper content was never spoken,
But each knew all the other said.
He told me how calm his soul was laid
By the lack of anvil and strife.
"The wooing kestrel," I said, "mutes his mating-note
To please the harmony of this sweet silence."

The 2021 novel *My Heart Is a Chainsaw* confirmed that Stephen Graham Jones is one of the most talented writers of horror fiction today. By featuring main characters who are Blackfeet, like Jones himself, the novel also helped to ensure that Indigenous people have a place within the horror genre. But Jones is hardly the only Indigenous voice in horror: Lisa Fuller, a member of the Murri people of Australia, has also written in the genre. Her acclaimed 2019 young adult novel *Ghost Bird* is set in a Murri community in Queensland, Australia.

Horizontal gene transfer involves the exchange of genetic material between organisms not in a parent-offspring relationship. It is common among prokaryotes (single-celled organisms, such as the bacteria *Enterococcus cecorum* and *Moraxella caviae*). The process can have the effect of increasing bacterial resistance to antibiotics; as such, an understanding of how to prevent horizontal gene transfer might result in the mitigation of dangerous pathogens (organisms that cause disease).

In 2013 Oona M. Lönnstedt and colleagues published a study concluding that ocean acidification has a strong effect on the behavior of *Pomacentrus amboinensis*, a species of fish. However, Lönnstedt and colleagues' study relied on a mean sample size of only about 28 fish. In a 2022 review of various scientists' conclusions about the impacts of ocean acidification on fish behavior, Jeff C. Clements and colleagues caution that relying on such a relatively small sample size can increase the potential for biased analysis. Such analysis, in turn, can contribute to reports of exaggerated effects.

5 Mark for Review

Which choice best describes the function of the reference to the "wooing kestrel" (a type of bird) in the text as a whole?

- (A) It emphasizes the speaker's belief that her friend is not sharing his true feelings with her.
- (B) It suggests that nature has secrets that humans are fundamentally incapable of discovering.
- (C) It illustrates the assertion that peace is a subjective state rather than an objective one.
- (D) It presents the natural world as aligning with the experience of the speaker and her friend.

6 Mark for Review

Which choice best describes the function of the underlined sentence?

- (A) It predicts that non-Indigenous authors will include more Indigenous characters in their work.
- (B) It challenges the widely held view that Stephen Graham Jones based *My Heart Is a Chainsaw* on events in his own life.
- (C) It highlights the significance of the portrayal of Indigenous people in *My Heart Is a Chainsaw*.
- (D) It asks why so many readers who don't enjoy the horror genre have purchased *My Heart Is a Chainsaw*.

7 Mark for Review

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

- (A) It suggests that a commonly held belief regarding an organism is mistaken.
- (B) It summarizes the history of research into a biological phenomenon.
- (C) It illustrates why one organism may pose more of a threat than another.
- (D) It explains a practical benefit of researching a particular biological process.

8 Mark for Review

Which choice best states the main topic of the text?

- (A) A possible shortcoming of a study involving *Pomacentrus amboinensis*
- (B) A discovery regarding the evolution of *Pomacentrus amboinensis*
- (C) A change in fish behavior first reported in 2022
- (D) A newly identified cause of ocean acidification

Historians point to the rule of the Piast dynasty as crucial to the formation of the Polish state. However, some differentiate between members of the dynasty like Wladyslaw I Herman, who ruled as duke from 1079 to 1102 CE, and less well-documented figures like Lestek, who is said to have ruled in the 9th and 10th centuries but whose historical actuality is disputed. Lestek appears in the *Gesta principum Polonorum*, a chronicle of medieval Polish history written between 1112 and 1118. However, the chronicle's documentation of Lestek relies on oral tradition, unlike its records of later rulers.

Days per Winter That Lakes Have Surface Ice

Lake	Latitude (degrees)	1980–81	1985–86	1990–91	1995–96	2000–01	2005–06
Spirit Lake	43.46	102	135	121	134	147	126
Lake Kegonsa	42.97	94	116	104	113	124	101
Näckten	62.913	177	168	144	174	133	134

It is common for freshwater lakes near or above a latitude of 45° north of the equator, like Lake Stechlin in Germany, to accumulate surface ice in winter. The amount and duration of ice depends on many factors, including local weather conditions as well as the lake's depth, volume, and surface area, but a climate researcher claims that the higher a lake's latitude, the more days per winter it will typically have measurable amounts of surface ice.

Impact of Four Key Industries on Oklahoma Economy in 2017

Industry	Approximate total contribution by industry	Number of people employed by industry	Average contribution per employee by industry
Tribal economic activity	\$7,312,400,000	51,674	\$141,510
Administration/waste	\$5,830,600,000	96,964	\$60,132
Wholesale trade	\$10,723,400,000	58,346	\$183,790
Construction	\$6,797,300,000	77,247	\$87,994

The Osage Nation, the Seminole Nation, and the more than thirty other tribes in Oklahoma operate numerous businesses and generate billions of dollars in revenue. An economics student is researching the tribes' collective activity as a single industry. The student wants to compare the

9

Mark for Review



According to the text, what is a difference between how historians view Lestek and how they view Wladyslaw I Herman?

- (A) Historians believe that the *Gesta principum Polonorum* provides more evidence for Lestek's existence than it does for Wladyslaw I Herman's existence.
- (B) Historians agree that Wladyslaw I Herman existed, but disagree about whether Lestek existed.
- (C) Historians agree that Lestek ruled Poland much later than Wladyslaw I Herman.
- (D) Historians find the orally transmitted stories affirming the existence of Wladyslaw I Herman to be more convincing than similar stories about Lestek.

10

Mark for Review



Which choice best describes data in the table that support the researcher's claim?

- (A) Näckten is at a higher latitude than Lake Kegonsa and typically had fewer days of ice per winter than Lake Kegonsa did.
- (B) Spirit Lake had 102 days of ice in the winter of 1980–81 and 126 days of ice in the winter of 2005–06.
- (C) Näckten had 177 days of ice in the winter of 1980–81 and 134 days of ice in the winter of 2005–06.
- (D) Näckten is at a higher latitude than Lake Kegonsa and typically had more days of ice per winter than Lake Kegonsa did.

11

Mark for Review

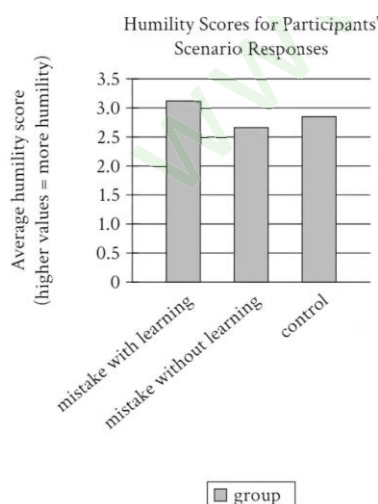


Which choice most effectively uses data from the table to complete the comparison?

- (A) below all three of the other industries listed in the table.
- (B) below wholesale trade but above both construction and administration/waste.
- (C) above all three of the other industries listed in the table.
- (D) above either administration/waste or construction and nearly equal to wholesale trade.

Uncle Vanya: Scenes from Country Life in Four Acts is an 1898 play by Anton Chekhov, originally written in Russian. In the play, Professor Serebrakoff and his wife Helena have come to stay at their country estate, which Vanya manages with the help of Sonia, the professor's daughter from a previous marriage. Chekhov depicts Vanya's opinion of Professor Serebrakoff as having changed significantly, as is evident when _____

Uncle Vanya: Scenes from Country Life in Four Acts is an 1898 play by Anton Chekhov, originally written in Russian. In the play, Professor Serebrakoff and his wife Helena have come to stay at their country estate, which Vanya manages with the help of Sonia, the professor's daughter from a previous marriage. Chekhov depicts Vanya's opinion of Professor Serebrakoff as having changed significantly, as is evident when _____



12 Mark for Review

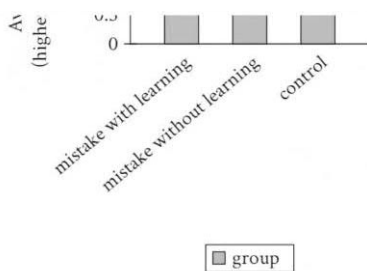
Which quotation from a translation of *Uncle Vanya* most effectively illustrates the claim?

- (A) Vanya says to Professor Serebrakoff, "For twenty-five years I have managed [the country estate], and have sent you the returns from it like the most honest of servants, and you have never given me one single word of thanks for my work, not one—neither in my youth nor now."
 - (B) Professor Serebrakoff says to Helena, "It is funny that everybody listens to [Vanya] and his old idiot of a mother; but the moment I open my lips you all begin to feel ill-treated."
 - (C) Vanya says to Professor Serebrakoff, "This place [the country estate] could never have been bought had I not renounced my inheritance in favor of my sister [the professor's late wife], whom I deeply loved—and what is more, I worked for ten years like an ox, and paid off the debt."
- have managed [the country estate], and have sent you the returns from it like the most honest of servants, and you have never given me one single word of thanks for my work, not one—neither in my youth nor now."
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 - (D) Vanya says to himself, "I was proud of [Professor Serebrakoff] and of his learning; I received all his words and writings as inspired and now? Now he has retired, and what is the total of his life? A blank! He is absolutely unknown, and his fame has burst like a soap-bubble. I have been deceived; I see that now, basely deceived."

13 Mark for Review

Which choice best describes data in the graph that support the researchers' conclusion?

- (A) The managers who reflected on a past mistake that resulted in learning exhibited more humility on average than the managers in the other two groups did.
- (B) None of the three groups' average humility scores exceeded 3.5.
- (C) The managers in the control group exhibited only slightly less humility on average than the managers in the two experimental groups did.
- (D) All three groups exhibited less humility on average than the researchers expected.



Jia Hu and colleagues hypothesized that workplace leaders who reflect on lessons learned from past mistakes are likely to exhibit more humility than leaders who don't engage in such reflection. To test this, the team placed 301 managers in one of three groups. Participants in two experimental groups were asked to reflect on a mistake, one group focusing on a mistake that resulted in learning and the other group focusing on a mistake that didn't result in learning. Participants in a control group were asked to reflect on their daily routine. All the participants then described how they would respond to a workplace scenario. After evaluating the responses for evidence of humility, the researchers concluded that their hypothesis was correct.

Nora Ephron's 1983 novel *Heartburn* is regularly described as autobiographical. That characterization is apt—there are many parallels between the experiences of the novel's narrator, Rachel Samstat, and those of Ephron—but it should not be taken to mean that all the people and events depicted in *Heartburn* are based on actual people and events. The novel is largely pure invention, and readers who neglect this fact and instead try to identify more and more real-life analogues thus risk ____

What is the correct pronunciation of Kiribati? In the Gilbertese language spoken by residents of the island nation, the letter combination *-ti* makes the *-s* sound; as a result, the country's name ____ pronounced "Kiribas."

A recipient of both the Wolf Prize in Chemistry and the Robert A. Welch Award, chemist Ahmed Zewail expanded the limits of measurability when he devised a novel technique in optical spectroscopy that allows researchers ____ chemical reactions occurring within molecules at a quadrillionth of a second, or one femtosecond.

13

Mark for Review

ABC

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- (D) All three groups exhibited less humility on average than the researchers expected.

14

Mark for Review

ABC

Which choice most logically completes the text?

- (A) overemphasizing the extent to which Ephron took inspiration from earlier writers.
- (B) positing unsupportable connections between *Heartburn* and Ephron's life.
- (C) misrepresenting *Heartburn* as being more widely read than it actually is.
- (D) minimizing the fact that Ephron drew on real-world material when writing *Heartburn*.

15

Mark for Review

ABC

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) is
- (B) are being
- (C) have been
- (D) are

16

Mark for Review

ABC

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) to study
- (B) will study
- (C) who study
- (D) studying

Both Arteaga, in the state of Coahuila, and Lagos de Moreno, in the state of Jalisco, have been designated by Mexico as *pueblos mágicos* (magical villages) to celebrate these _____ natural beauty and unique cultural traditions.

The size of bird eggs varies widely across species, and the researchers, _____ computer imaging to compare the lengths of eggs from species like *Chloroceryle americana* and *Francoelinus coqui*, aimed to shed light on the evolutionary basis for such variation.

A lady-in-waiting's account of Japanese courtly life in the tenth century, Sei Shōnagon's *Pillow Book* is filled with daily observations and musings. Some of these appear as _____ "Things That Arouse a Fond Memory of the Past," Shōnagon catalogs her appreciation for pressed silk, a moonlit night, and dried hollyhock.

In his work, acclaimed Cahuilla _____ Gerald Clarke uses basketry, acrylic paintings, and other mediums to explore Native perspectives on truth and beauty.

Scientists long debated the origins of chondrules, tiny glass beads that formed in meteors billions of years ago. For decades, different theories were proposed, from lightning strikes to powerful rock collisions, but none had sufficient evidentiary support. _____ scientists found strong evidence that chondrules were formed by shock waves in nearby nebulae.

17 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

(A) town

(B) town's

(C) towns

(D) towns'

18 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

(A) using

(B) to use

(C) use

(D) used

19 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

(A) lists: in

(B) lists in

(C) lists in:

(D) lists, in

20 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

(A) artist, and 2007 Eiteljorg Fellowship recipient

(B) artist and 2007 Eiteljorg Fellowship recipient

(C) artist and 2007 Eiteljorg Fellowship recipient—

(D) artist and 2007 Eiteljorg Fellowship recipient,

21 Mark for Review

Which choice completes the text with the most logical transition?

(A) For example,

(B) Finally,

(C) Similarly,

(D) Therefore,

Voting members of the 2006 Latin Grammys were impressed by Los Tigres del Norte's album *Historias Que Contar* and its contribution to the norteño genre, a form of regional Mexican music featuring accordion and bajo sexto guitar that first developed in northern Mexico in the late nineteenth century. _____ they awarded the group the Best Norteño Album award.

As anthropologist Cristina Grasseni explains, with the rise in demand for artisanal cheeses claiming to be typical of specific Italian regions, such as Pecorino Siciliano cheese from Sicily, came the need to guarantee the veracity of such claims to consumers. _____ the European Union established DOP status, a label certifying that the cheese was made according to the region's local traditions.

While researching a topic, a student has taken the following notes:

- Chromosomes are cellular structures that contain genes.
- Genes carry critical instructions for determining an organism's physical traits.
- The fennec fox and the red fox are both species of foxes.
- As a species, the fennec fox has sixty-four chromosomes.
- As a species, the red fox has thirty-four chromosomes.

While researching a topic, a student has taken the following notes:

- Crown shyness is a phenomenon in which the tops (crowns) of neighboring trees grow close together but don't overlap.
- To explain how this happens, Australian forester M.R. Jacobs proposes the mutual abrasion theory.
- According to Jacobs's theory, when trees brush against one another, branches break off.
- Malaysian scholar Francis S.P. Ng posits the mutual shade avoidance theory.
- According to Ng's theory, when tree branches detect shade from nearby trees' branches, they stop growing.

22 Mark for Review

Which choice completes the text with the most logical transition?

- (A) In contrast,
- (B) Accordingly,
- (C) Meanwhile,
- (D) Nevertheless,

23 Mark for Review

Which choice completes the text with the most logical transition?

- (A) Conversely,
- (B) Likewise,
- (C) Regardless,
- (D) Therefore,

24 Mark for Review

The student wants to emphasize a difference between the two species of foxes. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) Genes, which are in fennec fox chromosomes, carry critical instructions for determining the fox's physical traits.
- (B) While both are species of foxes, the fennec fox and the red fox don't have the same number of chromosomes: fennec foxes have sixty-four, whereas red foxes have only thirty-four.
- (C) The fennec fox and the red fox both have chromosomes, which contain genes.
- (D) The red fox, a species of fox, has thirty-four cellular structures called chromosomes.

25 Mark for Review

The student wants to compare the causes of crown shyness proposed in the two theories. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) Ng posits the mutual shade avoidance theory, whereas Jacobs proposes an alternative theory.
- (B) Both Jacobs and Ng have proposed theories to explain what causes crown shyness.
- (C) While Jacobs proposes that crown shyness is caused by neighboring tree branches brushing against one another, Ng posits that it occurs when branches detect shade from nearby trees' branches.
- (D) Jacobs's mutual abrasion theory proposes that when neighboring trees brush against one another, branches break off, resulting in a phenomenon in which the tops of trees grow close together but don't overlap.

- In 2017, a research team led by Mary Caswell Stoddard determined the average lengths of eggs produced by various bird species.
- *Acrocephalus scirpaceus* is a species of bird in the order Passeriformes.
- *Acrocephalus scirpaceus* eggs had an average length of 1.80 cm.
- *Alcedo atthis* is a species of bird in the order Coraciiformes.
- *Alcedo atthis* eggs had an average length of 2.19 cm.

- Understanding the history of science is critical for understanding how knowledge evolves.
- Anna Vickers was a French algologist born in 1852.
- She is known for her research on algae in the Canary Islands.
- Margaret Crosfield was a British geologist born in 1859.
- She is known for her research on the hills of Northeast Wales.

26 Mark for Review

Which choice most effectively uses information from the given sentences to emphasize a difference between the eggs of the two species?

- (A) A 2017 study compared the lengths of eggs produced by an array of different bird species, such as *Acrocephalus scirpaceus* and *Alcedo atthis*.
- (B) The bird species *Acrocephalus scirpaceus*, which belongs to the order Passeriformes, and *Alcedo atthis*, of the order Coraciiformes, were included in a 2017 study that compared the average lengths of their eggs.
- (C) Mary Caswell Stoddard led a research study that determined the average lengths of eggs, including those of *Acrocephalus scirpaceus* birds (1.80 cm) and *Alcedo atthis* birds (2.19 cm).
- (D) A 2017 study found that *Acrocephalus scirpaceus* eggs had an average length of 1.80 cm, whereas *Alcedo atthis* eggs were longer, with an average length of 2.19 cm.

27 Mark for Review

Which choice most effectively uses information from the given sentences to emphasize a difference between Vickers and Crosfield?

- (A) Though it was conducted long ago, the research performed by algologist Anna Vickers and geologist Margaret Crosfield can help us understand how scientific knowledge evolves.
- (B) Algology and geology are just two examples of the myriad fields in which scientists can specialize.
- (C) Anna Vickers studied algae in the Canary Islands; Margaret Crosfield, however, studied the hills of Northeast Wales.
- (D) Both Anna Vickers and Margaret Crosfield are known for their contributions to science.

section 1

module 2:
Reading and writing

Today, the mobile application Instagram is thought of exclusively as a photo- and video-sharing program, but image-sharing was originally _____ the app's main purpose, which was to allow users to indicate their locations to other users in real time. Only once it became clear how popular the secondary feature of image-sharing was did the company shift to making that the app's centerpiece.

The Beirut Stock Exchange in Beirut, Lebanon, connects companies operating in Lebanon with potential investors. This is a valuable service since the time and expense necessary to find individual investors might otherwise be _____ for these companies: many of the companies could not operate if they had to do everything necessary to find investors for themselves.

A casual description of Scherezade Garcia's 2019 mural *Blame It on the Bean: The Power of Coffee* can make the work seem _____—a painting that is housed in a coffee shop and that depicts three women drinking coffee may not sound particularly ambitious—but in fact the work is a complex, dynamic meditation on gender and the legacy of colonialism that demands serious attention.

Some robots such as Actroid (developed in 2003) and Auriga (developed in 2011) are designed to resemble humans so that people will find it easier to interact with them. To that end, certain features such as bipedal locomotion can help to _____ people's feelings of comfort, but a robot that looks *too* human can fall into the "uncanny valley," meaning that its appearance unintentionally unsettles those who encounter it.

1 Mark for Review

Which choice completes the text with the most logical and precise word or phrase?

A subordinate to

B duplicated in

C extracted by

D intrinsic to

2 Mark for Review

Which choice completes the text with the most logical and precise word or phrase?

A distinctive

B misconstrued

C prohibitive

D beneficial

3 Mark for Review

Which choice completes the text with the most logical and precise word or phrase?

A incongruous

B shrewd

C pretentious

D unassuming

4 Mark for Review

Which choice completes the text with the most logical and precise word or phrase?

A mitigate

B constrict

C repudiate

D buttress

The *Cygne* is just one of approximately three million known historical shipwrecks spread throughout the world's oceans, and their impact on sea life and underwater ecosystems is of great interest to researchers. Leila Hamdan and colleagues were particularly curious about the effects of wooden shipwrecks on seafloor microbial communities. The researchers studied two wooden shipwrecks in the Gulf of Mexico by placing pieces of pine and oak between zero and 200 meters away from each shipwreck to collect samples of three kinds of microbes: bacteria, archaea, and fungi. They found that across the three microbial communities, peak diversity and richness was observed on pine and oak samples placed approximately 125 meters from the shipwrecks.

The following text is from Lady Gregory's 1904 play *Spreading the News*. Mrs. Tarpey, Bartley, and Mrs. Fallon have been buying and selling goods at the local fair.

MRS. TARPEY: Good morrow, Bartley Fallon; good morrow, Mrs. Fallon. Well, Bartley, you'll find no cause for complaining to-day; they are all saying it was a good fair.

BARTLEY: (*Raising his voice.*) It was not a good fair, Mrs. Tarpey. It was a scattered sort of a fair. If we didn't expect more, we got less. That's the way with me always; whatever I have to sell goes down and whatever I have to buy goes up. If there's ever any misfortune coming to this world, it's on myself it pitches, like a flock of crows on seed potatoes.

Community science, which involves professional scientists collaborating with amateur science enthusiasts to study a topic, is often an effective and engaging way to conduct research. It can allow people to assist with conservation efforts, spark youth interest in science, and increase the amount of data researchers can collect. This approach was essential to the success of a study by biologist Abbigail Merrill and colleagues of how butterfly color relates to flower choice, which included findings from hundreds of students and community members in northwestern Arkansas.

3 Mark for Review

Which choice best describes the overall structure of the text?

- (A) It states the number of known shipwrecks, describes the historical significance of one of those shipwrecks, and then comments on the various microbes found at the shipwreck site.
- (B) It introduces a study of microbial communities near shipwrecks that has received significant scholarly attention, summarizes the results of that study, and then describes a research team's reaction to the study.
- (C) It names a famous historical shipwreck, describes the type of wood used to build that ship, and then explains how that wood type influences underwater microbial communities.
- (D) It notes a general scientific interest in shipwrecks' ecological effects, describes a specific study related to that interest, and then states one of the study's findings.

6 Mark for Review

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

- (A) It discusses an event that Mrs. Tarpey believes is unlikely to occur.
- (B) It presents a vivid image to emphasize a claim that Bartley makes.
- (C) It mounts a counterargument to a claim that Bartley made about the fair.
- (D) It describes a scene that Bartley witnessed at the fair.

7 Mark for Review

Which choice best describes the overall structure of the text?

- (A) It introduces the topic of a scientific study, describes the study's importance, and then presents the study's results.
- (B) It argues for a new approach to scientific research, comments on the public's opinion about the approach, and then describes how that approach was applied in a certain study.
- (C) It describes the development of a type of scientific collaboration, shows how that type of collaboration has been used in a particular field of study, and then suggests future collaborative projects.
- (D) It identifies a particular approach to research, lists some benefits of that approach, and then mentions a study in which that approach was used.

Text 1

In separate studies, Marine Fernandez and colleagues and Hualiang Zhang and colleagues examined whether plants transfer nutrients to one another using a common mycorrhizal network (CMN)—a lattice of fungal strands in the soil. Fernandez and colleagues excluded all pathways other than the CMN by using barriers to keep the plants' root systems separate while allowing mycorrhizal strands through—a crucial step Zhang and colleagues' study did not take.

Text 2

Fernandez and colleagues took the necessary precaution of separating the plants' root systems (thereby excluding root-to-root transmission). However, any barrier used must allow the thread-like hyphae of a CMN to pass through, and this permeability would also allow liquids through. Thus, the researchers' experimental design cannot ensure that any nutrient transfer observed can be attributed to a CMN and not to some other pathway.

Using the Stratospheric Observatory for Infrared Astronomy (SOFIA), a team of astronomers mapped out the magnetic field of G47, one of the Milky Way's galactic bones (dense clouds of gas and dust that run through the middle of the arm of a spiral galaxy). Surprisingly, the map revealed a magnetic field with no clear pattern or direction. The researchers had expected the magnetic field to be similar to the more uniform fields seen in galactic bones in other arms of the Milky Way.

The following text is from Anthony Trollope's 1855 novel *The Warden*. The narrator is describing a rectory, the residence of a clergyperson.

There was an air of heaviness about the rooms which might have been avoided without any sacrifice of propriety; colours might have been better chosen and lights more perfectly diffused; but perhaps in doing so the thorough clerical aspect of the whole might have been somewhat marred; at any rate, it was not without ample consideration that those thick, dark, costly carpets were put down; those embossed, but sombre [wallpapers] hung up; those heavy curtains draped so as to half exclude the light of the sun.

The following text is from Nathaniel Hawthorne's 1830 short story "Sir William Phips."

Few of the personages of past times (except such as have gained renown in fireside legends as well as in written history) are anything but mere names to their successors. They seldom stand up in our Imaginations like men. The knowledge, communicated by the historian and biographer, is analogous to that which we acquire of a country by the map,—minute, perhaps, and accurate, and available for all necessary purposes, but cold and naked, and wholly destitute of the mimic charm produced by landscape painting.

8

Mark for Review



Based on the texts, the author of Text 1 and the author of Text 2 would most likely give the same answer to which question?

- (A) Is there an available barrier material that can block roots and liquids while allowing fungal strands through?
- (B) Did Zhang and colleagues' study effectively exclude any nutrient pathway other than a CMN?
- (C) Are the barriers used in Fernandez and colleagues' study sufficient to ensure that nutrient transfer could only occur via a CMN?
- (D) Do plants that transfer nutrients through a root-to-root pathway also transmit nutrients via a CMN?

9

Mark for Review



According to the text, what was surprising about the researchers' mapping of the magnetic field of galactic bone G47?

- (A) It implied that previous mappings of the magnetic field were inaccurate.
- (B) It produced magnetic field measurements similar to those for other galactic bones.
- (C) It revealed a magnetic field that wasn't uniform.
- (D) It showed a weaker magnetic field than expected.

10

Mark for Review



What does the text most strongly suggest about the rooms in the rectory?

- (A) They are meant to feel comfortable but are in reality uninviting.
- (B) They have been furnished with the intention of maintaining a sense of appropriateness.
- (C) They are decorated in a style that strikes the narrator as too extravagant.
- (D) They have many decorations the narrator finds good looking, but they are not particularly practical.

11

Mark for Review



Which choice best states the main idea of the text?

- (A) Historians and biographers should write about little-known people as well as famous people.
- (B) The lives of historical figures are usually documented as a collection of facts, rather than as a representation of their personalities.
- (C) Historians should record fictional stories told about famous figures as well as stories that are strictly truthful.
- (D) Paintings may be more beautiful than maps, but maps are more useful than paintings.

In what is now Minnesota, the Shakopee Mdewakanton Sioux Community operates the Hočokata Ti, a cultural center. Relying on traditional knowledge to guide the design of exhibits, this institution presents Dakota history and culture to the tribe's citizens. The Turtle Mountain Band of Chippewa, a tribe in North Dakota, employs a similar strategy in its own cultural center. Both centers contrast with museums that aren't Indigenous-led; when displaying Indigenous artifacts, such museums tend to anticipate mainly non-Indigenous audiences and rely on Euro-centric strategies for designing exhibits.

13.

The bird species *Saltator grossus* (the slate-colored grosbeak), which weighs about 45 grams, and *Microbates collaris* (the collared gnatwren), which weighs about 10 grams, share territory in French Guiana with *Thamnomanes caesi* (the cinereous antshrike), which emits a loud alarm call when it detects predators. Biologist Ari Martínez and colleagues, who studied the ecological community these species share, hypothesized that since there is an inverse relationship between body size and vulnerability to predation, there will also be an inverse relationship between body size and sensitivity to predator warning signals from neighboring species.

14.

Scholars cite *Mr. President*, the 1946 novel by Guatemalan author Miguel Ángel Asturias, as a foundational text of magical realism, the Latin American style of fiction in which antirealistic plot devices—often borrowed from the spiritual and narrative traditions of Indigenous and colonial societies in the Americas—are deployed in an otherwise realistic mode of representation typical of the modern novel. This style has exerted a decisive influence on authors around the world, including Olga Tokarczuk, whose 1996 novel *Primeval and Other Times* resembles classic magical realist novels in its juxtaposition of literary realism with folklore—namely, that of Poland.

12 Mark for Review

The text best supports which conclusion about the cultural center operated by the Turtle Mountain Band of Chippewa?

- (A) Its exhibits are likely intended to reconcile Indigenous perspectives with Euro-centric perspectives.
- (B) Its exhibits likely rely on the traditional knowledge of multiple tribes.
- (C) Its ability to present history and culture to tribal citizens is limited by its physical size.
- (D) Its exhibits are likely designed for the benefit of audiences consisting mainly of tribal citizens.

Which finding, if true, would most directly support Martínez and colleagues' hypothesis?

- (A) When Martínez and colleagues played *T. caesi* alarm calls, only bird species larger than *S. grossus* displayed predator-avoidance behavior.
- (B) *M. collaris* displayed predator-avoidance behavior when Martínez and colleagues played *T. caesi* alarm calls as well as when the researchers played control sounds of random noise.
- (C) Many bird species smaller than *S. grossus* displayed predator-avoidance behavior in response to *T. caesi* alarm calls played by Martínez and colleagues, but none smaller than *M. collaris* did.
- (D) *M. collaris* displayed predator-avoidance behavior in response to *T. caesi* alarm calls played by Martínez and colleagues, whereas *S. grossus* did not.

Which quotation from a literary scholar would most directly support the claim in the underlined portion of the text?

- (A) "Like many works in the Latin American magical realist tradition, *Primeval and Other Times* is indebted to antirealistic elements in the folklore of Poland."
- (B) "While *Primeval and Other Times* alternates between realistic and antirealistic modes of representation, details suggesting the influence of Polish folklore nevertheless occur throughout the novel."
- (C) "Although Polish folklore clearly informs the style and occasionally antirealistic plot of *Primeval and Other Times*, the novel also shows the inarguable influence of the magical realist tradition of Latin America."
- (D) "The logic of the realistic plot of *Primeval and Other Times* is repeatedly and productively disrupted by the presence of imagery and situations drawn from Polish folklore."

The Bronze Age in Britain lasted from around 2500 BCE to approximately 700 BCE. Collections of metal items (called hoards) from all periods of the Bronze Age have been found in Britain, including the Arreton Down hoard of artifacts from the 17th century BCE, unearthed around 1735, and the much later Hollingbourne hoard of artifacts from the 10th century BCE, unearthed around 2003. Sometime in the Middle Bronze Age (approximately from the 14th century BCE to the 10th century BCE), metalsmiths in Britain began to develop swords for the first time. This fact helps explain why, whereas evidence of sword production was found in _____

15

Mark for Review

ABC

Which choice most logically completes the text?

- (A) both the Arreton Down hoard and the Hollingbourne hoard, only the latter included evidence of more refined sword production.
- (B) hoards discovered before 2003, no such evidence was found in hoards that were discovered later.
- (C) the Arreton Down hoard, no intact swords were found among the items in the hoard.
- (D) the Hollingbourne hoard, no such evidence was found in the Arreton Down hoard.

Mongolia, which, according to international indices, has relatively strong democratic institutions and low intranational income inequality, experienced an inflation rate of 4.30% in 2017, whereas Cameroon, which shows the opposite pattern on such indices, had an inflation rate of only 0.64% that year. Such comparisons have engendered speculation that by diluting control over the economy, democratic institutions inhibit states' ability to counteract inflationary pressures. To test this possibility systematically, Raj Desai et al. examined democratic strength, intranational inequality, and inflation in more than 100 countries, finding that democratic strength, if associated with low inequality, restrains inflationary pressures, suggesting that _____

16

Mark for Review

ABC

Which choice most logically completes the text?

- (A) it would be a mistake to treat the relative inflation rates of Mongolia and Cameroon as indicative of an inherent shortcoming in democratic institutions with regard to control over inflation.
- (B) speculations about the relative inability of democratic institutions to counteract inflation are based on measures that tend to exaggerate the levels of inflation in strongly democratic countries such as Mongolia.
- (C) the factors that contributed to Mongolia's elevated inflation rate relative to Cameroon's have less to do with the countries' political institutions than with the countries' levels of income inequality.
- (D) the difference between Mongolia and Cameroon with regard to democratic institution strength may have been greater in 2017 than was represented by international indices.

During the decades-long movement to codify the rights of Latinos in the US, certain events were pivotal: the founding of veteran rights group the American GI Forum in _____ *Mendez v. Westminster* court decision in 1946, which affirmed the rights of Latino students, is another such event.

17

Mark for Review

ABC

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) 1948, for one. The
- (B) 1948. For one, the
- (C) 1948, for one, the
- (D) 1948 for one, the

Sociologist Alton Okinaka sits on the review board tasked with adding new sites to the Hawai'i Register of Historic Places, which includes Menehune Fishpond, a historic Hawaiian fishpond, and the Wailuku School, built in 1904. Okinaka doesn't make such decisions single-handedly, _____ historical designations must be approved by a group of nine other experts.

18

Mark for Review

ABC

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) however. All
- (B) however all
- (C) however and all
- (D) however, all

Photographer Mária Švarbová has reached audiences well beyond her home country of Slovakia. In 2016, her work was featured at an international photography festival in _____ the exhibited photographs, with their vivid pastel colors, overexposed tones, and mirrorlike symmetry, captivated audiences.

Recently unearthed Neolithic tools in France dating to 54,000 years ago and attributed to *Homo sapiens* may provide evidence that interactions between Neanderthals and modern humans occurred 10,000 years earlier than was previously _____ finding that, if true, would overturn current theories about *H. sapiens* migration during the Upper Paleolithic.

Though he's performed on many respected albums, including *Loud Jazz* by John Scofield, drummer Dennis Chambers may be best known for his time as house drummer for the hip-hop label Sugar Hill Records. He did not play drums on the label's classic song "Rapper's _____ he joined the label after the song's release.

Scientists were able to isolate a relatively pure sample of neon in 1898, the same year they first discovered the element's existence. _____ the isolation process took longer for erbium, which was isolated in its pure form 91 years after scientists first discovered it

The method used in 1920 by the US Geological Survey to calculate the geographic center of Wyoming, involving a cardboard cutout of the state and a piece of string, seems rudimentary today. _____ the center found in a 2015 study using far more advanced technology differed from the original by just a few miles, proving the original method to be relatively accurate.

19 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) Italy, for example;
- (B) Italy, for example,
- (C) Italy; for example,
- (D) Italy, for example

20 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) supposed a
- (B) supposed. A
- (C) supposed, a
- (D) supposed; a

21 Mark for Review

Which choice completes the text so that it conforms to the conventions of Standard English?

- (A) Delight." However,
- (B) Delight," however;
- (C) Delight," however,
- (D) Delight" however

22 Mark for Review

Which choice completes the text with the most logical transition?

- (A) For instance,
- (B) By contrast,
- (C) Thus,
- (D) Similarly,

23 Mark for Review

Which choice completes the text with the most logical transition?

- (A) For example,
- (B) That said,
- (C) As such,
- (D) In other words,

A 2022 study by researchers Hala Altamimi and Qiaozhen Liu investigated the relationship between nonprofit arts organizations' spending and performance. _____ the researchers examined the correlation between how much 22,328 US arts nonprofits spent on overhead—operational costs such as equipment and fundraising—and how many people attended their events (a measure of overall success).

Though Middle English was widely spoken in fourteenth-century England, the English language was rarely employed in literature until poet Geoffrey Chaucer helped pioneer its literary use. _____ his manuscripts contain the first documented uses of over 2,000 English words—like the word “digestion” in his 1395 poem “The Squire’s Tale”—which led a contemporary to dub him “the first finder of our fair language.”

- Merle Oberon (1911–1979) was an actress born in Mumbai (then known as Bombay), India.
- She was of Indian, Maori, and Irish heritage.
- She was the first Indian-born actress to be nominated for an Academy Award.
- Early in her career, she played many nameless, uncredited roles, such as her role in *Strange Evidence* (1933).
- Later, she played many named, credited roles, such as Jill Baker in *That Uncertain Feeling* (1941).

While researching a topic, a student has taken the following notes:

- Auteur theory is a view of filmmaking that positions the director as the primary author of a film.
- This now dominant theory was coined by film critic Andrew Sarris.
- In a 1963 rebuttal, film critic Pauline Kael argued that film authorship should be shared among screenwriters, directors, and others involved in the filmmaking process.
- In a 2006 book, film critic David Kipen proposed “schreiber theory.”
- Schreiber theory repositions the screenwriter as the primary author of a film.

24 Mark for Review

Which choice completes the text with the most logical transition?

- (A) By comparison,
- (B) Thus,
- (C) Specifically,
- (D) In addition,

25 Mark for Review

Which choice completes the text with the most logical transition?

- (A) That being said,
- (B) Indeed,
- (C) Besides,
- (D) However,

26 Mark for Review

Which choice most effectively uses information from the given sentences to specify Merle Oberon's role in *That Uncertain Feeling* (1941)?

- (A) Merle Oberon was an Indian-born actress who performed in many films, including *Strange Evidence* (1933) and *That Uncertain Feeling* (1941).
- (B) Merle Oberon's story begins in Mumbai (then known as Bombay), India, in 1911.
- (C) In 1941, Indian-born actress Merle Oberon played the role of Jill Baker in the film *That Uncertain Feeling*.
- (D) Though she would go on to receive credit in many films, Merle Oberon started her career playing uncredited, nameless roles in films such as *Strange Evidence* (1933).

27 Mark for Review

The student wants to compare Kipen's theory of film authorship with Sarris's. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- (A) In repositioning the screenwriter (not the director) as the primary author of a film, schreiber theory presents an alternative to the dominant auteur theory.
- (B) Film critics Andrew Sarris and David Kipen hold the view that film authorship should be shared among those involved in the filmmaking process.
- (C) In a 1963 rebuttal to Sarris's theory that a director is the primary author of a film, Kael proposed that screenwriters should instead be given sole authorship.
- (D) Kipen's theory of film authorship contrasts with that of Kael, who famously argued against Sarris's auteur theory in 1963.

ENGLISH sections answers

module1

- 1 d
- 2 c
- 3 c
- 4 b
- 5 d
- 6 c
- 7 d
- 8 a
- 9 b
- 10 d
- 11 b
- 12 d
- 13 a
- 14 b
- 15 a
- 16 a
- 17 d
- 18 a
- 19 a
- 20 b
- 21 b
- 22 b
- 23 d
- 24 b
- 25 c
- 26 d
- 27 c

module 2

- a
- c
- d
- a
- d
- b
- d
- b
- c
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- b
- c
- a

Reading and Writing Module 1

33 QUESTIONS

1

Smart watches and wireless speakers tend to contain batteries that can't be easily _____. Sustainability researcher Mariana López Davila warns that because new batteries can't be put in once the old ones no longer work, the gadgets stop functioning and are usually disposed of as trash.

Which choice completes the text with the most logical and precise word or phrase?

- A) replaced
- B) prevented
- C) invented
- D) rated

2

The following text is adapted from Kenneth Grahame's 1908 novel *The Wind in the Willows*. The Mole is dazed after briefly meeting a stranger while traveling with a friend.

[The] Mole stood still a moment, held in thought. As one wakened suddenly from a beautiful dream, who struggles to recall it, and can re capture nothing but a dim sense of the beauty of it, the beauty! Till that, too, fades away in its turn.

As used in the text, what does the word "recall" most nearly mean?

- A) Deny
- B) Remember
- C) Start
- D) Overlook

3

There is no doubt that Irwin Rose must have proved himself to be extraordinarily _____ understanding some of the most advanced concepts in the field of chemistry --- in 2004 his remarkable talent and hard work was recognized when he was among those awarded the Nobel Prize in Chemistry for "the discovery of ubiquitin-mediated protein degradation."

Which choice completes the text with the most logical and precise word or phrase?

- A) modest about
- B) adept at
- C) lighthearted about
- D) dispassionate in

4

Some robots such as Wabian (developed in 1995) and ASIMO (developed in 2011) feature humanoid characteristics like the ability to respond to voice commands so that people will find it easier to interact with them. While these features can help to _____ feelings of comfort in people, a robot that looks too human can fall into the "uncanny valley," meaning that its appearance unintentionally unsettles those who encounter it.

Which choice completes the text with the most logical and precise word or phrase?

- A) constrict
- B) counterbalance
- C) repudiate
- D) engender

Economists have long observed that firms in related industries tend to cluster in the same area, as is the case in Sheffield, UK, where many initial iron and steel processing firms as well as iron and steel tube manufacturers are located. The factors causing such clustering are ____: what drives firms in certain industries to cluster may not be especially relevant among other industries.

Which choice completes the text with the most logical and precise word or phrase?

- A) variable
- B) impressive
- C) unknown
- D) focused

6

The following text is adapted from Adib Khorram's 2018 novel *Darius the Great Is Not Okay*. Darius, a teenager from the United States, is visiting his grandparents, Babou and Mamou, in Iran. They are preparing for a holiday celebration.

I felt like a tourist.

But Babou fussed with my cap a little more, even though Mamou had already gotten it settled. He looked me in the eye from time to time, like he was looking for something, and thought maybe just maybe I had it in me after all. Babou hummed to himself as he smoothed out my shoulder seams and rested his hands on them.

"I am glad you are here to see this, Darioush-jan."

Maybe I wasn't such a tourist.

Which choice best states the main purpose of the text?

- A) To demonstrate that Babou and Darius aren't very interested in going to new places
- B) To suggest that Babou is planning to visit Darius in the United States soon
- C) To emphasize that Darius has been looking forward to an event
- D) To show that Babou affects the way Darius thinks of himself

7

The food industry has long used thermal technologies to preserve food in large batches. Recent advancements in microwave heating were made through research in Brazil on the preservation of green coconut water. Microwave heating is generally considered to be an improvement over more conventional thermal preservation methods: whereas conventional methods transfer energy from the surface of a food to its interior, microwave heating uses electromagnetic waves to generate heat within the food itself, thus reducing industrial cooking times.

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

- A) It explains why conventional heating methods are popular in commercial applications and proposes a shift away from these methods.
- B) It identifies an advantage that microwave heating has over conventional thermal preservation methods.
- C) It emphasizes the simplicity of microwave heating technologies.
- D) It suggests that there are possible flaws in microwave heating technologies that have not yet been well researched.

8

In a large community science effort, biologist Abbigail Merrill and colleagues collaborated with hundreds of students and other amateur science enthusiasts for more than three years to study how butterfly color and weather conditions relate to butterfly behavior. They found that white butterflies were observed on green flowers more often than any other butterflies were, and that butterflies were observed to feed more often on cloudy days than on other days.

Which choice best states the main idea of the text?

- A) Collaboration between professional scientists and members of the public is especially useful when studying the behavior of butterflies and other flying insects.
- B) A recent study suggested that butterflies' coloring seems to be less relevant to their behavior than weather conditions.
- C) A large study suggested that butterfly color and weather conditions might influence the behavior of certain butterflies.

b) Weather conditions and butterfly color seem to have less influence on butterfly behavior than the location where the butterflies are studied does

9

President Richard Nixon is most famous for his participation in the 1970s Watergate political scandal, a convoluted tale of criminality and eroded ethics involving a constellation of associates such as White House Counsel Chuck Colson and White House Counsel John Dean. But Nixon's legacy is complex: he has been praised for his role in creating the Environmental Protection Agency, and he once made an attempt at reforming United States health care policy that is arguably a precursor to the Affordable Care Act, which became law during the Barack Obama administration.

Which choice best states the main idea of the text?

- A) Chuck Colson and John Dean were significant figures in the presidency of Richard Nixon.
- B) Richard Nixon's reputation is primarily due to the actions of his associates.
- C) Some of Richard Nixon's policies influenced the policies of later presidential administrations.
- D) Richard Nixon is commonly linked with an infamous historical event, but this overshadows some of his notable achievements.

10



Argentina, Brazil, and the United States are among the world's leading producers of maize (corn), and each country exports a certain percentage of maize each marketing year, which runs from March to February in Argentina and Brazil and from September to August in the United States. A student is researching those percentages and finds that for the marketing year 2012/2013, the percentage of maize exported by ____

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

- A) Argentina decreased from the previous marketing year but remained the highest among the three countries.
- B) Brazil exceeded the percentage exported by Argentina for the first time.
- C) the United States reached its highest point during the five marketing years.
- D) Brazil increased from the previous marketing year but remained lower than the percentage exported by the United States.

11

A student is writing a research paper on the history of irrigation in the United States, situating the development of the Rowena Reservoir (created in Los Angeles County, California, in 1901) in a larger historical context. The student claims that California's climate renders irrigation an essential component of agriculture in some parts of the state but not in others.

Which quotation from a study of California agriculture best supports the student's claim?

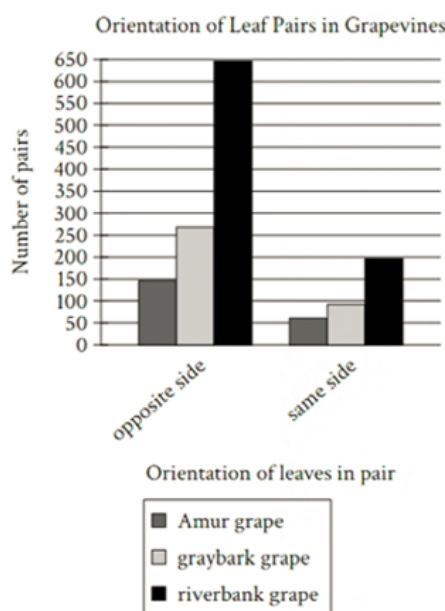
A) "The usefulness of irrigation infrastructure in California today cannot be overstated, since it is the most common means of conveying water for agricultural purposes."

B) "Sprinkler irrigation systems are a contemporary way of irrigating that requires machinery to spray water in all directions. These are currently used throughout the United States and are especially prevalent in California."

C) "The irrigation system developed by the Hohokam people in the 7th century CE in what is now Arizona was simple, but this system applied hydraulic engineering design features that are in use today throughout California."

D) "Natural humidity, which renders irrigation unnecessary or reduces its importance in the northern reaches of California, gradually decreases toward the sun-scorched but nonetheless fertile valleys of the southern part of the state."

12



Auxins are a class of hormones that influence plant growth, including leaf orientation (the tendency of leaves to be larger on one side of their long central axis than the other). University of California, Berkeley biologist Ciera Martinez and colleagues noted that in certain plants in which leaves grow in pairs, auxins will typically be concentrated in opposite sides of each leaf in the pair (e.g., on the left side of one leaf in the pair and the right side of the other). Accordingly, they hypothesized that paired leaves should tend to show opposite-side orientation, and they tested their hypothesis by examining paired leaves from several species of grapevines.

Which choice best describes data from the graph that support Martinez and colleagues' hypothesis?

- A) Although the number of leaf pairs showing same side orientation is fairly high in the riverbank grape, it is much lower in both the Amur grape and graybark grape.
- B) In the riverbank grape, graybark grape, and Amur grape, all the leaf pairs show opposite -side orientation.
- C) Although the exact ratio varies by species, the riverbank grape, graybark grape, and Amur grape all show more leaf pairs with opposite-side orientations than with same-side orientations.
- D) The number of leaf pairs showing opposite side orientation is fairly high in the graybark grape, but not as high as it is in the riverbank grape.

13

Studies of the Effects of Tilling vs. No Tilling on Crop Yields

Authors	Crop	Crop yield with tilling (kilograms per hectare)	Crop yield with no tilling (kilograms per hectare)
Carlos Cantero-Martínez and colleagues	winter barley	2,693	3,136
Danijel Jug and colleagues	winter wheat	4,860	3,910
Fuseini Issaka and colleagues	rice	6,400	6,300
Yao Guo and colleagues	spring wheat	7,420	8,730

Danijel Jug and colleagues found that tilling --- the practice of turning soil with hoes, plows, or other machines before planting crops --- was associated with an increased yield of winter wheat. But some studies of other crops have found the opposite effect, raising the question of whether the increase in yield found by Jug and colleagues is specific to their study crop. However, this doesn't seem to be the case: _____

Which choice most effectively uses data from the table to complete the assertion?

- A) a study using winter wheat yielded 4,860 kilograms per hectare with tilling and only 3,910 kilograms per hectare without tilling.
- B) Fuseini Issaka and colleagues found a similar association in a study using rice.
- C) Yao Guo and colleagues reported an even larger positive effect of tilling on the yield of spring wheat.
- D) crop yields with tilling have ranged from 2,693 kilograms per hectare for winter barley to 7,420 kilograms per hectare for spring wheat.

14

All stainless steel contains varying amounts of iron, carbon, and corrosion-inhibiting chromium. However, ferritic stainless steel, often used for induction cookers, contains a higher percentage of chromium (at least 10.5%) than does austenitic stainless steel and a higher concentration of iron, which is responsible for its magnetic properties. Unlike ferritic stainless steel, austenitic stainless steel has a face-centered cubic crystalline structure resulting from the addition of nickel to the alloy. Austenitic stainless steel has two subtypes: the 300 series, often used for storage containers, and the 200 series, which has less nickel and more nitrogen than the 300 series and is used for dishwashers. Thus, stainless steel used to manufacture _____

Which choice most logically completes the text?

- A) both storage containers and dishwashers will have a face-centered cubic crystalline structure, but stainless steel used to manufacture storage containers will have less nickel than stainless steel used to manufacture dishwashers will.
- B) storage containers will have less nitrogen in its composition than stainless steel used to manufacture dishwashers will.
- C) storage containers will have a concentration of nitrogen greater than 10.5%, while stainless steel used to manufacture dishwashers will not.
- D) storage containers will have similar magnetic properties to stainless steel used to manufacture induction cookers.

15

In her large scale sculpture Casa-Isla, artist Edra Soto included references to her childhood in Puerto Rico. For example, the sculpture's steel panels have a crisscrossing pattern inspired by the iron gates _____

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) Soto would see in her neighborhood.
- B) Soto would see in her neighborhood?

C) would Soto see in her neighborhood.

D) would Soto see in her neighborhood.

16

By analyzing the level of radioactive decay within a fossil specimen, scientists can establish the age of that fossil with a high degree of precision. When radioactive elements aren't present, scientists turn to _____ analysis of Earth's sediment layers (strata) to estimate how old a fossil is based on the age of the strata in which the fossil is found.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) stratigraphy (the
- B) stratigraphy --- the
- C) stratigraphy: the
- D) stratigraphy, the

17

As an object-oriented computer programming language, Python is used by coders like Black Girls Code founder Kimberly Bryant _____ programs by manipulating "objects" (that is, specifically defined variables or combinations of variables) into interacting with each other. Conversely, Prolog, used in software development and artificial intelligence, is not an object oriented language.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) created
- B) is creating
- C) create
- D) to create

18

Many of the cities and _____ are known by nicknames that correspond to one of their notable features, like landscape, climate, famous residents, or chief exports. For example, the Puerto Rican municipality of Arecibo has also been called "the Villa of Captain Correa," a nickname that alludes to what the area is well known for: Antonio de los Reyes Correa, the 17th-century army captain who once defended the town.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) towns, that dot the island of Puerto Rico,
- B) towns that dot the island of Puerto Rico
- C) towns, that dot the island of Puerto Rico
- D) towns that dot the island of Puerto Rico,

19

While the greater adjutant can be found in places like Tram Chim in Vietnam and Hakaluki Haor in Bangladesh, more than 80 percent of this endangered stork species is found in Assam, India. There, wildlife biologist Dr. Purnima Devi Barman is on the frontlines of conservation efforts that, through community involvement and scientific _____ aim to bring adjutants back from near extinction.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) study ---
- B) study,
- C) study
- D) study:

20

Stefan Dimitrescu, a Romanian impressionist painter whose works are distinctive for their heavy brushstrokes, _____ frequently included in the early twentieth-century art movement the Balchik School, whose members were known for depicting the ambiance of the Romanian seaside town.

Which choice completes the text so that it conforms to the conventions of Standard English?

... have been

- B) were
- C) is
- D) are

21

As a behavioral economist, Francesca Gino of Harvard Business School examines human economic behavior through a lens that, _____ elements of psychology and economics, illuminates how and why (and to what effect) people make particular choices.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) combines
- B) combining
- C) combine
- D) is combining

22

In his essay "Of Sleep," French philosopher Michel de Montaigne explores a relatively light subject, but he addresses heavier fare in "That Our Mind Hinders Itself." Regardless of subject matter, Montaigne works to question his own perspective throughout his essays. _____ his personal motto was "What do I know?"

Which choice completes the text with the most logical transition?

- A) Still,
- B) Conversely,
- C) Nowadays,
- D) Fittingly,

23

The World Cup of men's soccer, one of the biggest sporting events on the planet, brought 32 national teams from six continents to the host country, Russia, in 2018. The event, which is held every four years, has expanded greatly since it was played in Chile in 1962. _____ the World Cup included only 16 teams, all from Europe and the Americas.

Which choice completes the text with the most logical transition?

- A) On the other hand,
- B) As a result,
- C) Then,
- D) Similarly,

24

While researching a topic, a student has taken the following notes:

- In 1897, twenty Black U.S. Army infantrymen rode bicycles from Montana to Missouri.
- The 1,900-mile journey took forty-one days.
- The goal was to test the idea of forming a military bicycle corps.
- In 2022, Erick Cedeño, a Black long-distance cyclist, reenacted the journey.
- Cedeño wanted to honor the infantrymen on the journey's 125th anniversary.

The student wants to emphasize how far the infantrymen traveled. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The goal of the 1897 journey was to test the idea of forming a military bicycle corps.
- B) Over a century later, Erick Cedeño honored the infantrymen by reenacting their 1897 journey.
- C) The 125th anniversary of the infantrymen's journey was in 2022.
- D) The U.S. infantrymen rode their bicycles from Montana to Missouri traveling a total of 1,900 miles.

While researching a topic, a student has taken the following notes:

- Mary Kang is a Korean American portrait photographer.
- She is based in New York City and in Austin, Texas.
- One of Kang's photographs features artist Dominique Fung.
- In the portrait, Fung is seated on the floor.
- Five of Fung's paintings are resting against the wall behind her.

The student wants to describe where Fung is in the photograph to an audience already familiar with Kang and Fung. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) Five paintings by artist Dominique Fung can be seen in the background of Mary Kang's photograph.
- B) In Kang's portrait of her, Fung is seated on the floor, with five of her paintings resting against the wall behind her.
- C) Mary Kang is a photographer based in both New York City and Austin, Texas.
- D) Dominique Fung is in a photograph by Mary Kang, a portrait photographer based in New York City and Austin, Texas.

26

While researching a topic, a student has taken the following notes:

- Congo is a country in Central Africa.
- A high percentage of Congo's population (41.5 percent) is under fifteen years old.
- It has the twenty-sixth-largest under-fifteen population in the world.
- Roughly 40 percent of Africa's population is under fifteen years old --- the highest of any continent.
- According to the United Nations (UN), Africa's "high number of young people is an opportunity for the continent's growth --- but only if these new generations are fully empowered to realize their best potential."

The student wants to emphasize the global rank of Congo's youth population. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) "Only if these new generations are fully empowered to realize their best potential," says the UN, will Africa's high percentage of young people lead to the continent's growth.
- B) Making up roughly 40 percent of the continent's total population, Africa's under-fifteen population offers "an opportunity for the continent's growth," according to the UN.
- C) With 41.5 percent of its population under fifteen years of age, Congo has the twenty sixth-largest population for that age range in the world.
- D) Africa's high population of young people is due in part to the high percentage of young people in Congo.

27

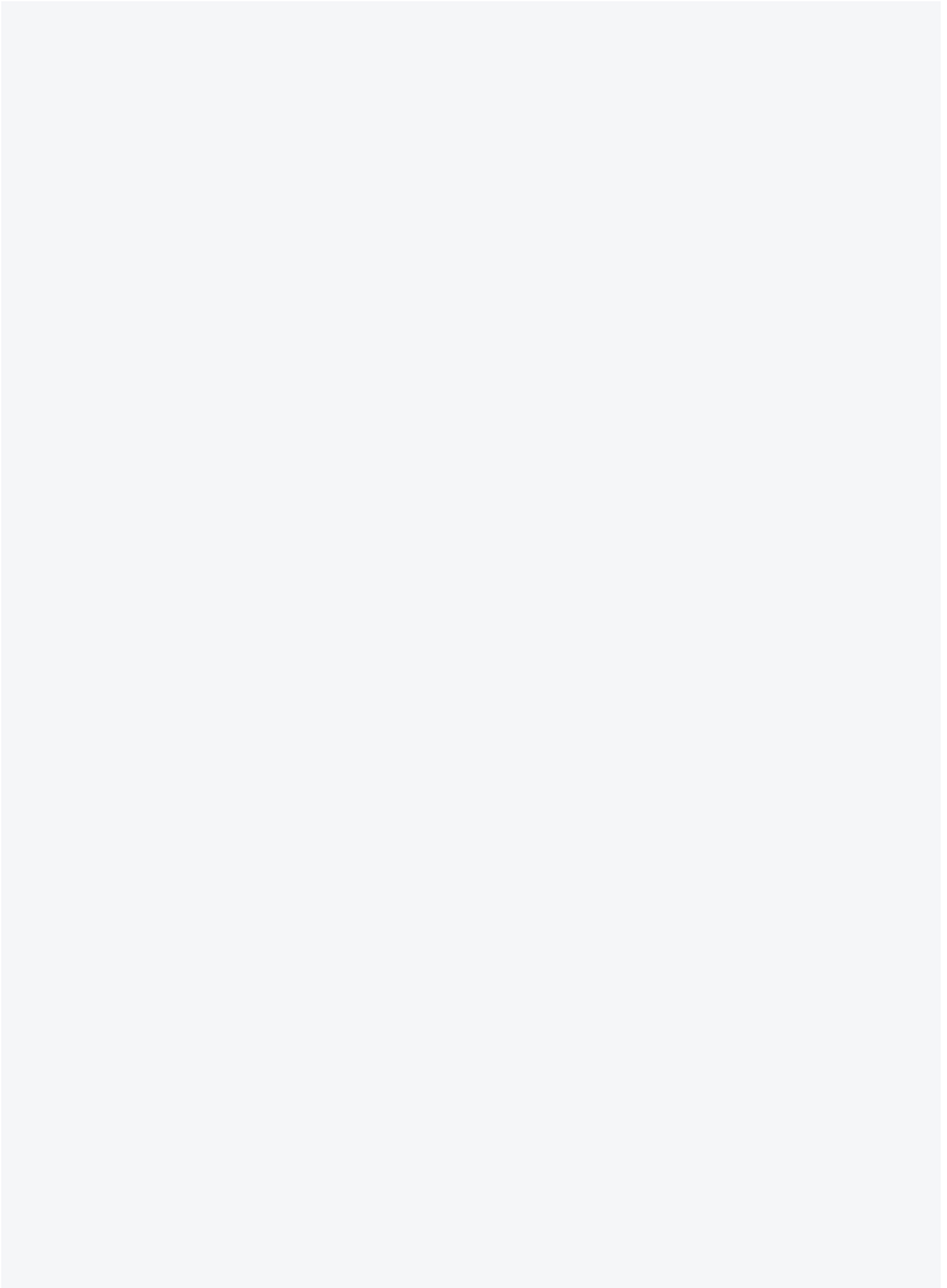
While researching a topic, a student has taken the following notes:

- The Future of Nostalgia is a scholarly book by literary theorist Svetlana Boym.
- The book explores the concept of nostalgia from various angles.
- Chapter 16 discusses the nostalgic home décor of Russian émigrés.
- Chapter 17 discusses various skeptics' takes on the concept of nostalgia.
- In chapter 17, Boym writes, "The poethics of nostalgia combines estrangement and human solidarity, affect and reflection."

The student wants to explain what Svetlana Boym writes about in chapter 16. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) As Svetlana Boym writes in the seventeenth chapter of her book, "The poethics of nostalgia combines estrangement and human solidarity, affect and reflection."
- B) Literary theorist Svetlana Boym discusses the nostalgic home décor of Russian émigrés in chapter 16 of her book.
- C) After discussing the nostalgic home décor of Russian émigrés, Svetlana Boym goes on to discuss various skeptics' takes on the concept of nostalgia.

5/ Stefania Baym's *The Future of Nostalgia* explores the concept of nostalgia from various angles.



Reading and Writing Module 2

33 QUESTIONS

1

The following text is from Charles Chesnutt's 1905 novel *The Colonel's Dream*. Mr. French and Mr. Kirby work together.

Mr. French, the senior partner, who sat opposite Kirby, was an older man --- a safe guess would have placed him somewhere in the debatable ground between forty and fifty; of a good height, as could be seen even from the seated figure, the upper part of which was held erect with the unconscious ease which one associates with military training.

As used in the text, what does the word "placed" most nearly mean?

- A) Contracted
- B) Changed
- C) Estimated
- D) Arranged

2

The results of randomized clinical trials testing the efficacy of common medical interventions sometimes fail to _____ conclusions that practitioners reach based on their real-world observations of patients. While there are several possible reasons for this, one is that practitioners may overlook confounding variables that account for the results they attribute to the interventions in question.

Which choice completes the text with the most logical and precise word or phrase?

- A) circumvent
- B) corroborate
- C) disseminate
- D) implement

3

Louise Arner Boyd, who led several scientific expeditions off the coast of Greenland in the 1930s, undoubtedly accomplished much, but her place in our historical memory is perhaps more _____ than that of a noteworthy "first" such as Enid Gordon-Gallien, who led the expedition that first mapped the area around Kalambo Falls between Zambia and Tanzania, a deed for which she will always be remembered.

Which choice completes the text with the most logical and precise word or phrase?

- A) uncertain
- B) enduring
- C) deserving
- D) conspicuous

4

In the 2010s, the price of vintage Teenage Mutant Ninja Turtles action figures rose dramatically, which had the counterintuitive effect of _____ demand: buyers who hadn't previously wanted to purchase old action figures suddenly thronged the market, believing prices would continue to rise and the toys could be resold later at a profit.

Which choice completes the text with the most logical and precise word or phrase?

- A) monetizing
- B) stabilizing
- C) precipitating

5

In 2013 Fredrik Jutfelt and Maria Hedgarde published a study concluding that ocean acidification has a strong effect on the behavior of *Gadus morhua*, a species of fish. However, Jutfelt and Hedgarde's study relied on a mean sample size of only about 16 fish. In a 2022 review of various scientists' conclusions about the impacts of ocean acidification on fish behavior, Josefin Sundin and colleagues caution that relying on such a relatively small sample size can increase the potential for biased analysis. Such analysis, in turn, can contribute to reports of exaggerated effects.

Which choice best states the main purpose of the text?

- A) To discuss an aspect of ocean acidification that is frequently overlooked
- B) To explain how the behavior of a fish species has changed over time
- C) To present a debate between two research teams about a cause of ocean acidification
- D) To note a potential concern about the findings of a scientific study

6

The following text is from Lady Gregory's 1904 play *Spreading the News*. Mrs. Tarpey, Bartley, and Mrs. Fallon have been buying and selling goods at the local fair.

MRS. TARPEY: Good morrow, Bartley Fallon; good morrow, Mrs. Fallon. Well, Bartley, you'll find no cause for complaining today; they are all saying it was a good fair.

BARTLEY: (Raising his voice.) It was not a good fair, Mrs. Tarpey. It was a scattered sort of a fair. If we didn't expect more, we got less. That's the way with me always; whatever I have to sell goes down and whatever I have to buy goes up. If there's ever any misfortune coming to this world, it's on myself it pitches, like a flock of crows on seed potatoes.

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

- A) It mounts a counterargument to a claim that Bartley made about the fair.
- B) It indicates the degree to which Mrs. Tarpey doubts a certain event will occur.
- C) It presents a vivid image to emphasize a claim that Bartley makes.
- D) It describes an event that Bartley observed at the fair.

7

Historians have argued that a crucial component of the Civil Rights Movement's success in the 1960s was the Southern Christian Leadership Conference's Citizen Education Program (CEP), which invited promising activists from across the South to its one-week training sessions in Dorchester, Georgia. Led by experienced organizers such as Dorothy Cotton and Septima Clark, CEP attendees --- more than 7,000 in all --- participated in workshops on topics ranging from public speaking to legal doctrine before returning home and using their newly acquired knowledge to spearhead local civil rights initiatives.

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

- A) It illustrates the CEP organizers' efforts to educate participants on a wide variety of topics.
- B) It establishes that criticism of the CEP was limited to a few individuals in the Southern Christian Leadership Conference.
- C) It underscores the extent of the CEP's impact on the Civil Rights Movement of the 1960s.
- D) It suggests that CEP attendees held a diverse array of opinions about the Southern Christian Leadership Conference's political philosophy.

8

Asteroid 6478 Gault has experienced intermittent mass loss since at least 2013, but in contrast to some other asteroids with repeated mass-loss episodes, 6478 Gault has not lost mass at its perihelion (the closest point of its orbit to the Sun), and thus the loss is not attributable to solar energy driven ice vaporization. And as Jane X. Luu et al. point out, the singular nature of impact ejection makes it untenable as an account of multiple loss episodes of similar duration over several years. Instead, Luu et al. are likely correct that 6478 Gault is shedding mass due to rotational instability.

Which choice best describes the overall structure of the text?

- A) It discusses a physical process, evaluates possible causes of that process, and then states that a persuasive account of the process has yet to be put forward.
- B) It introduces a natural phenomenon, refutes two potential explanations for that phenomenon, and then presents a third explanation for that phenomenon that the author regards as plausible.

C) It presents a scientific observation, describes a contrast between that observation and other observations, and then explains why those other observations should not be considered credible.

D) It describes an astronomical finding, discusses competing theories about that finding that the author regards as flawed, and then describes new evidence that supports an alternative theory.

9

Text 1

In South Dakota, many buildings and other structures rest on soil that is expansive, meaning that it swells or shrinks as its moisture level changes. Civil engineer Jay X. Wang has noted that the effects of expansive soil appear slowly in the form of gradually growing cracks in foundations, walls, and pavements. Because these effects are incremental and can generally be repaired (though at some cost), structures in South Dakota are typically not built to resist them.

Text 2

In a 2021 study, Rubayet Bin Mostafiz and colleagues calculated that in the state of Louisiana alone, the annual cost of damage caused by expansive soils reaches nearly \$90 million. But they note that this damage can be mitigated: building vapor barriers between structural foundations and the soil can significantly reduce the effects of soil swelling and shrinking.

Based on the texts, how would Rubayet Bin Mostafiz and colleagues (Text 2) most likely respond to the information presented in Text 1?

- A) They would suggest that engineers in South Dakota consider the cost of reinforcing the vapor barriers between existing structural foundations and the soil.
- B) They would argue that engineers in South Dakota have misjudged the effectiveness of the techniques they use to reduce the effects of expansive soil.
- C) They would encourage engineers in South Dakota to insert vapor barriers between new structures' foundations and the surrounding soil.
- D) They would recommend that engineers in South Dakota measure the moisture level in the soil beneath proposed structures before beginning construction.

10

The following text is from Nathaniel Hawthorne's 1830 short story "Sir William Phips."

Few of the personages of past times (except such as have gained renown in fireside legends as well as in written history) are anything but mere names to their successors. They seldom stand up in our Imaginations like men. The knowledge, communicated by the historian and biographer, is analogous to that which we acquire of a country by the map, minute, perhaps, and accurate, and available for all necessary purposes, but cold and naked, and wholly destitute of the mimic charm produced by landscape painting.

Which choice best states the main idea of the text?

- A) The creativity of historians is restricted by the need to write strictly truthful works.
- B) Painting is a superior form of art to mapmaking.
- C) Historians are more interested in the lives of famous people than in those of the less famous.
- D) The lives of historical figures are usually documented as a collection of facts, rather than as a representation of their personalities.

11

Thomas Piketty and other historians of capitalism rarely discuss domestic capitalism in Africa before the period of European colonization, implicitly presenting capitalism as external to and imposed on Africa. Crislayne Alfagali and other Africanist scholars have shown, however, that in parts of Africa, export-oriented manufacturing, the existence of salaried labor, and other features of capitalism predated colonization. One reason for this discrepancy is that historians of capitalism tend to focus on longitudinal economic data drawn from archival records, which do not exist for much of precolonial Africa.

Which statement about Alfagali and other Africanist scholars is best supported by information in the text?

- A) They likely have a different view about which activities should be considered capitalist in nature than historians of capitalism do.
- B) They likely view capitalism as having been more beneficial for Africa than historians of capitalism do.
- C) They likely differ from historians of capitalism in the methods they use to derive longitudinal economic data from archival records.

12

Geneticist Elaine Ostrander led an international collaboration in which Heather J. Huson and other researchers investigated the evolutionary history of size variation in modern dogs. The researchers identified multiple versions of the gene regulating the production of IGF-1 (insulin-like growth factor 1) in dogs and found that dogs of the same breed consistently share the same version of the gene. In a discussion of the study, a student hypothesizes that small breeds of dogs (for example, miniature schnauzers) must share a version that represses IGF-1 production that would otherwise confer larger body size.

Which finding, if true, would most directly weaken the student's claim?

- A) The majority of the most prevalent dog breeds have limited activity in the gene that regulates IGF-1 production.
- B) The gene that regulates IGF-1 production is not the only gene that influences body size in dogs but is the only such gene that shows within-breed version consistency.
- C) Some breeds with small body sizes and low IGF-1 concentrations have a different version of the gene regulating IGF-1 production than do miniature schnauzers.
- D) The degree of size variation among dogs is greater than that of any other land-based mammal.

13

Scholars cite *Mr. President*, the 1946 novel by Guatemalan author Miguel Angel Asturias, as a foundational text of magical realism, the Latin American style of fiction in which antirealistic plot devices often borrowed from the folkloric traditions of Indigenous and colonial societies in the Americas are deployed in an otherwise realistic mode of representation typical of the modern novel. This style has exerted a decisive influence on authors around the world, including Mo Yan, whose 1986 novel *Red Sorghum* resembles classic magical realist novels in its juxtaposition of literary realism with folklore namely, that of China.

Which quotation from a literary scholar would most directly support the claim in the underlined portion of the text?

- A) "Like many works in the Latin American magical realist tradition, *Red Sorghum* is indebted to antirealistic elements in the folkloric tradition of China."
- B) "The logic of the realistic plot of *Red Sorghum* is repeatedly and productively disrupted by the presence of imagery and situations drawn from Chinese folklore."
- C) "While *Red Sorghum* alternates between realistic and antirealistic modes of representation, details suggesting the influence of Chinese folklore nevertheless occur throughout the novel."
- D) "Although Chinese folklore clearly informs the style and occasionally antirealistic plot of *Red Sorghum*, the novel also shows the inarguable influence of the magical realist tradition of Latin America."

14

Indigenous songs are an important resource for ecological information. Songs of the Warlpiri people in Yuendumu, Australia, convey information about wild edible seeds, and the songs of the Kaluli people in Papua New Guinea replicate rainforest sounds to evoke specific locations. There have been efforts made to preserve Indigenous languages over the years --- e.g., the United Nations International Decade of Indigenous Languages (2022-2032). However, such attempts have typically focused on spoken language despite the fact that some expressions in these languages appear only in songs. Therefore, if those involved in such efforts want to ensure that a comprehensive range of information is secured, they must _____

Which choice most logically completes the text?

- A) recognize that Indigenous languages likely have more unique expressions that represent ecological knowledge than represent other types of information.
- B) incorporate the preservation of songs into their broader efforts to protect Indigenous languages.
- C) analyze musical similarities in the songs of the Warlpiri and Kaluli people.
- D) acknowledge that Indigenous songs are largely but not entirely composed using phrases taken from spoken language.

15

In a 2012 study that took place in Brazil, Enelton Fagnani, José Roberto Guimara, and Pedro Sérgio Fadini found a negative association between levels of dissolved organic carbon and mercury in bodies of fresh water. It may seem reasonable to be skeptical of this finding, since most other studies, such as research conducted in 2016 in the United States by Ramsa Chaves-Ulloa and colleagues, have found that dissolved organic carbon and mercury levels rise together. Like the latter study, however, most studies of the topic have been conducted in North America, and many of those study sites have similar characteristics to one another, suggesting that _____

Which choice most logically completes the text?

A) few of the studies conducted in North America have been able to measure dissolved organic carbon and mercury levels with the same level of precision as in Fagnani, Guimara, and Fadini's study.

B) Fagnani, Guimarà, and Fadini's study may have inadvertently measured a different characteristic of bodies of fresh water than their levels of dissolved organic carbon and mercury.

C) the mercury levels reported in Fagnani, Guimară, and Fadini's study were much higher than those reported in the study by Chaves-Ulloa and colleagues even though the dissolved organic carbon levels reported in the two studies were approximately the same.

D) Fagnani, Guimara, and Fadini's finding may differ from the findings of other studies due to a difference in environmental circumstances that affects the relationship between dissolved organic carbon and mercury in fresh water.

16

As complex life cycle parasites, *Gonocerca* sp. and *Clavinema mariae* require multiple host species throughout their development. Extrapolating from parasite counts on surf smelt and seven other fish species collected from Puget Sound from 1880 to 2019, Chelsea Wood et al. found that the abundance of three host parasites, such as *Gonocerca* sp., negatively correlated with rising average annual sea temperatures; the abundance of two-host parasites, such as *C. mariae*, was largely stable. Noting that fish and other marine vertebrates are especially vulnerable to climate change, Wood et al. observed that all three host parasites in the study depend on at least two vertebrate species, while all two host parasites depend on only one, suggesting that _____

Which choice most logically completes the text?

A) population size and density of the eight fish species examined in the study were likely largely unaffected by rising sea temperatures.

B) although *Gonocerca* sp. and *C. mariae* both require surf smelt as a host, *C. mariae* was more adversely affected by warming-driven changes in the surf smelt population than *Gonocerca* sp. was.

C) warming-induced population changes among Puget Sound vertebrates may have suppressed some parasite populations, but there were no changes among the eight studied host species that affected two host parasite abundance.

D) a parasite's sensitivity to warming temperatures is negatively correlated with the number of unique vertebrate species it depends on throughout its lifecycle.

17

Entomologists Yash Sondhi and Samuel Fabian have tried to explain why moths fly erratically around light sources at night. Knowing that flying insects keep their backs pointed toward sunlight during the day, _____

Which choice completes the text so that it conforms to the conventions of Standard English?

A) moths continually try to reorient their bodies while flying near nighttime lights, the researchers theorize, mistaking such lights for the Sun.

B) moths mistake nighttime lights for the Sun and continually try to reorient their bodies while flying near such lights, the researchers theorize.

C) the researchers theorize that moths, mistaking nighttime lights for the Sun, continually try to reorient their bodies while flying near such lights.

D) the researchers' theory is that moths mistake nighttime lights for the Sun, continually trying to reorient their bodies while flying near such lights.

18

In Antarctica, the Dome C East observatory site monitors activity in the upper atmosphere of the southern _____ in Canada, another observatory site, Rankin Inlet, monitors the sky of the northern hemisphere. Together, they are part of the Super Dual Auroral Radar Network --- or SuperDARN, as space physicists like Mark Lester call it.

Which choice completes the text so that it conforms to the conventions of Standard English?

A) hemisphere

B) hemisphere and

C) hemisphere,

D) hemisphere;

19

butterfly is a 1968 painting by the Japanese artist Ryū Ōi. Like many of Ryū Ōi's paintings, *Butterfly*, which portrays a swimmer performing the butterfly stroke, attempts to make use of the entire visual light _____ sporting rainbow-striped goggles, the rainbow-hued swimmer splashes through a wavy rainbow of water.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) spectrum:
- B) spectrum, while
- C) spectrum while
- D) spectrum

20

The 20th century saw the founding of many Latino advocacy _____ to protect and advance the rights of Latino Americans, both the Mexican American Political Association (1960) and the Partido Nacional de La Raza Unida (1970) contributed to the history of US civil rights.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) groups and established
- B) groups, established
- C) groups established
- D) groups.Established

21

Estonia, Spain, and the other member nations of the North Atlantic Treaty Organization, or NATO, share a commitment to the principle of collective defense, each NATO member _____to defend the others if necessary.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) has pledged
- B) pledges
- C) pledging
- D) is pledging

22

The Organization for Economic Co-operation and Development (OECD) tracks comparative price list data for its thirty-eight member countries. For instance, in July 2021, a hypothetical basket of goods priced at 100 US dollars (USD) in the United States would have cost 73 USD and 117 USD in fellow OECD _____ and Norway, respectively.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) nations; Estonia
- B) nations: Estonia
- C) nations Estonia
- D) nations, Estonia

23

Modernista architects championed nature in their designs. _____ the domed entryway and ornate floral ironwork of Umbracle, a Modernista pavilion designed by Josep Fontserè i Mestre, couldn't exactly grow in a forest. Still, one sees natural influences in Fontserè i Mestre's penchant for curves (rather than right angles) and plant-and animal-inspired flourishes.

Which choice completes the text with the most logical transition?

- A) Similarly,
- B) Furthermore,
- C) Thus,
- D) Granted,

24

In a 1967 study by Warren et al., the researchers determined the ratio of three different plant subtypes within the diet of sheep: graminoids, forbs, and browse. _____ the researchers determined the relative quantities of the plants the animal consumed.

Which choice completes the text with the most logical transition?

- A) Next,
- B) That is,
- C) In addition,
- D) By contrast,

25

While researching a topic, a student has taken the following notes:

- Artist Victor Vasarely of Hungary won a Carnegie Prize gold medal in 1967.
- The Carnegie Prize is an international art competition.
- It is administered by the Carnegie Museum of Art in Pittsburgh, Pennsylvania.
- Vasarely's winning artwork was a sculpture entitled *Alom*.

The student wants to identify the sculpture for which Vasarely won a Carnegie Prize gold medal. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) In 1967, an artist from Hungary won a Carnegie Prize gold medal for a sculpture.
- B) Vasarely won a Carnegie Prize gold medal for the sculpture *Alom*.
- C) The Carnegie Museum of Art awarded Vasarely a gold medal in 1967.
- D) The Carnegie Prize is an international art competition administered by the Carnegie Museum of Art in Pittsburgh, Pennsylvania.

26

While researching a topic, a student has taken the following notes:

- Onomatopoeias are words that imitate the sounds they represent.
- Onomatopoeias used to represent the same sound often vary from language to language.
- This variation is due in part to differences in how languages are structured.
- "Du-dunk" is a Swedish onomatopoeia that represents the sound of a heartbeat.
- "Dag dig-dug" is an Indonesian onomatopoeia that represents the sound of a heartbeat.
- The term "onomatopoeia" combines the Greek words for "name" (*onoma*) and "to make" (*poiein*).

The student wants to provide a specific example of onomatopoeia. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The term "onomatopoeia," which refers to words that imitate the sound they represent, combines the Greek words for "name" and "to make."
- B) The languages of Swedish and Indonesian use different words to represent the sound of a heartbeat.
- C) Differences in how languages are structured can cause variations in the words used in different languages to represent the same sound.
- D) The Indonesian word "dag-dig dug" both imitates and represents the sound of a heartbeat.

27

- Vexillology is the study of flags.
- The flags of many countries include symbols like animals, plants, or landforms.
- These symbols often represent an aspect of the region's history, culture, or landscape.
- The flag of San Marino includes a laurel branch.
- The flag of Croatia includes leopards.

Which choice most effectively uses information from the given sentences to make and support a generalization about symbols on flags?

- A) Vexillology is the study of flags; accordingly, vexillologists are interested in flags from around the world.
- B) San Marino's flag includes a laurel branch, a symbol that is important to that country's national identity.
- C) The flags of some countries include symbols of plants; San Marino's, for example, includes a laurel branch.
- D) Many countries feature symbols on their flags, and the study of these designs is known as vexillology.

Reading and Writing Module 1 Answers

33 QUESTIONS

1. A
2. B
3. B
4. D
5. A
6. D
7. B
8. C
9. D
10. A
11. D
12. C
13. B
14. B
15. A
16. B
17. D
18. B
19. B
20. C
21. B
22. D
23. A
24. D
25. B
26. C
27. B

Reading and Writing Module 2 Answers

33 QUESTIONS

1. C
2. B
3. A
4. C
5. D
6. C
7. C
8. B
9. C
10. D
11. D
12. C
13. D
14. B
15. D
16. B
17. C
18. D
19. A
20. D
21. C
22. C
23. D
24. B
25. B
26. D
27. D

1

Module
1

1

VERBAL

1

In the 1990s, conservationists began planting more than 500,000 native trees in the habitat of the Azores bullfinch to boost the bird's numbers. This approach was apparently ____: the Azores bullfinch's population size increased from as few as 100 birds at the end of the 1980s to around 1,300 in 2023.

Which choice completes the text with the most logical and precise word or phrase?

- A.amusing
- B.successful
- C.disastrous
- D.costly

2

The discoverers of the minor planet 7334 Sciurus named it after the animal genus that includes squirrels. Most of the recently discovered minor planets, however, are given only an identification number, largely due to there being over 500,000 such bodies known at present, which makes the already challenging task of finding a unique name for each nearly ____.

Which choice completes the text with the most logical and precise word or phrase?

- A.feasible
- B.insurmountable
- C.substantial
- D.unnecessary

3

Posed in 1895, the Painlevé conjecture ____ many mathematicians before yielding to the efforts of Jinxin Xue, who presented a proof of it in 2014.

Which choice completes the text with the most logical and precise word or phrase?

- A.indoctrinated
- B.appeased
- C.confounded
- D.disregarded

4

The following text is adapted from John Matheus's 1925 short story "Fog."

The fog extended its tentacles over city and river, gradually obliterating traces of familiar landscapes. At five-thirty the old Panhandle bridge, supported by massive sandstone pillars, stalwart, as when erected fifty years before to serve a generation now passed behind the portals of life, had become a spectral outline against the sky.

As used in the text, what does the word "traces" most nearly mean?

- A. Copies
- B. Memories
- C. Indications
- D. Relics

5

Although Hawaiian literature is highly heterogeneous in many ways, it is also characterized by considerable thematic _____. Scholars have drawn connections linking works by writers such as David Kalakaua and Kaui Hart Hemmings to the traditional stories of the Kanaka Maoli, the Native Hawaiian people.

Which choice completes the text with the most logical and precise word or phrase?

- A. subtlety
- B. innovation
- C. sophistication
- D. continuity

6

Catherine L. Cardelús is a researcher who studies canopy soil. Canopy soil is formed in a tree's branches (its canopy) when dead leaves and other falling things collect. This material breaks down, becoming canopy soil. Canopy soil helps preserve a healthy water cycle (how water moves through the environment) in rain forests. This benefit is one reason Cardelús is interested in the canopy soils in large bully trees in rainforests in Costa Rica.

Which choice best describes the text's overall structure?

- A. It introduces a researcher and gives information about what she researches.
- B. It presents an idea and mentions a researcher who disagrees with that idea.
- C. It compares the sizes of two types of trees over several years.
- D. It explains a disagreement between researchers and how it was resolved.

7

The following text is from Louise Erdrich's 1986 novel *The Beet Queen*. The narrator discusses her relationship with her young niece, Dot. Celestine, the narrator's sister-in-law, is Dot's mother.

Dot was as impatient with babyhood as I. She tried at once to grow out of it. Celestine never saw that, because she, and only she, took pleasure in Dot's helpless softness. Only Celestine was saddened by her daughter's fierce progress. Day by day, Dot grew stronger. In her shopping-cart stroller she exercised to exhaustion, bouncing for hours to develop her leg muscles.

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

- A. It anticipates how Celestine's attitude toward life will change as she gets older.
- B. It offers a detail that shows how Dot is growing stronger.
- C. It indicates how sad Celestine is by describing a behavior she engages in.
- D. It lists some of the more obvious aspects of the narrator's personality.

8

Wakako Yamauchi is best known for *And the Soul Shall Dance*, her 1977 play about a Japanese American family in southern California. The play is based on a short story Yamauchi had published three years earlier. Adapting the story wasn't easy. Theater relies on dialogue between characters, but the original story features little dialogue and instead describes its characters' silent thoughts. To transform the story into a play, Yamauchi created situations where characters reveal their thoughts by speaking them aloud during conversations with each other.

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

- A. It offers information about how Yamauchi adapted her short story into a play.
- B. It argues that Yamauchi's play influenced later playwrights.
- C. It describes how Yamauchi chose the actors who performed in the play.
- D. It explains why Yamauchi's short story is better known than the play adaptation is.

9

Mexican textile artist Victoria Villasana weaves stories of triumph, using her unique method of applying colorful yarn to photographs of people. In some works, Villasana focuses on celebrating cultural icons who are people of color, as she does in her depiction of boxer Muhammad Ali. However, in other works, Villasana honors ordinary people, as she does in her captivating portrayal of a young girl sitting on a sidewalk. Villasana sees both of these approaches as ways of depicting the power and interconnectedness of all people.

According to the text, what kind of material does Villasana use in her artworks?

- A. Yarn
- B. Paint
- C. Chalk
- D. Stone

10

The following text is from José Rizal's 1891 novel *The Reign of Greed* (translated by Charles Derbyshire in 1912).

In his solitary retreat on the shore of the sea, whose mobile surface was visible through the open windows, extending outward until it mingled with the horizon, Padre Florentino was relieving the monotony by playing on his harmonium sad and melancholy tunes, to which the sonorous roar of the surf and the sighing of the treetops of the neighboring wood served as accompaniments. Notes long, full, mournful as a prayer, yet still vigorous, escaped from the old instrument. Padre Florentino, who was an accomplished musician, was improvising, and, as he was alone, gave free rein to the sadness in his heart.

Which choice best states the main idea of the text?

- A. Padre Florentino is insecure about his ability to improvise music.
- B. Padre Florentino has dedicated himself to becoming a skilled musician.
- C. The sadness of Padre Florentino's music reflects his own feelings.
- D. The residence of Padre Florentino is difficult to find.

11

Like many other bird species that live only on the Hawaiian archipelago, the kiwikiu has adapted to life in a well-defined habitat, resulting in highly specialized physical and behavioral characteristics that aid the species in survival. However, because the kiwikiu is highly specialized, it is especially vulnerable to environmental changes that can disrupt the delicately balanced ecosystem in which it lives.

Which choice best states the main idea of the text?

- A. The kiwikiu is a species of bird that is related to many other Hawaiian birds but does not share a habitat with any of them.
- B. The kiwikiu is an example of a highly specialized bird species found only on the Hawaiian archipelago and is related to several other highly specialized bird species found there.
- C. Hawaiian birds display a unique range of physical and behavioral characteristics and as a result can only live in habitats unique to the Hawaiian archipelago.
- D. The kiwikiu is an example of a species unique to the Hawaiian archipelago that is highly specialized and therefore particularly susceptible to habitat disturbances.

Orientation of Paired Leaves in Grapevines and Related Species

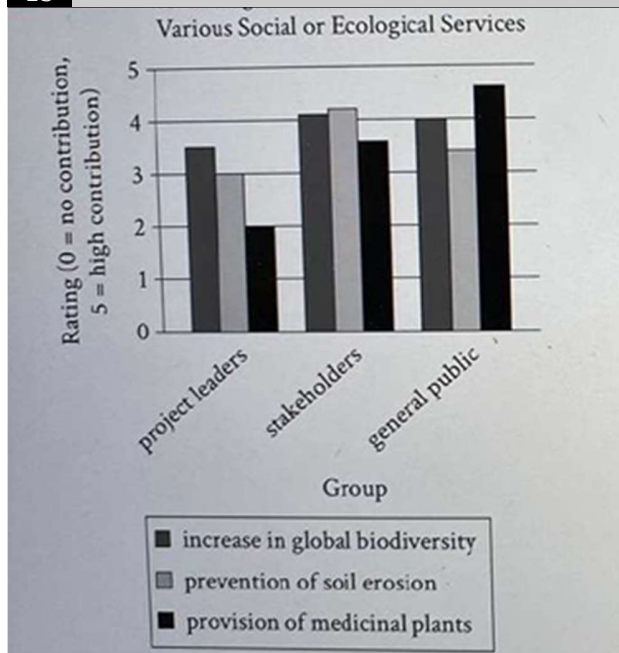
Species	Total leaf pairs examined	Pairs with opposite-side orientation	Pairs with same-side orientation	Ratio of opposite-side orientations to same-side orientations (n to 1)
<i>Vitis amurens</i>	207	146	61	2.39
<i>Vitis rupestris</i>	303	201	102	1.97
<i>Ampelopsis glandulosa</i>	47	38	9	4.22
<i>Vitis x champinii</i>	32	26	6	4.33

Many plants have leaves that are larger on one side of their long central axis than the other, a phenomenon known as asymmetrical orientation. University of California, Berkeley biologist Ciera Martinez and colleagues examined several species of grapevines and closely related plants, which have leaves that grow in pairs, to see if both leaves in a pair tend to be oriented toward the same side (that is, have more tissue on the same side) or not. They found that opposite-side orientations are more common than same-side orientations by ratios as high as...

Which choice most effectively uses data from the table to complete the assertion?

- A. 4.33 to 1, as in the case of *Vitis champinii*.
- B. 2.01 to 1, as in the case of *Vitis rupestris*.
- C. 4.22 to 1, as in the case of *Ampelopsis glandulosa*.
- D. 32 to 1, as in the case of *Vitis champinii*.

13



Urban agriculture is the practice of growing plant- or animal-based products in urban settings such as community gardens and rooftop farms. Esther Sanyé-Mengual, Kathrin Specht, and their team surveyed three groups of people in Bologna, Italy—leaders of urban agriculture projects, stakeholders in urban agriculture (e.g., food researchers and urban farming associations), and the general public—to compare their views about the extent to which urban agriculture contributes to 25 social or ecological services that the team identified. The survey results show that, on average, project leaders rated urban agriculture as contributing less to_____

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

- A. increasing global biodiversity than to providing medicinal plants.
- B. preventing soil erosion than to offering educational opportunities.
- C. providing medicinal plants than to increasing global biodiversity.
- D. increasing global biodiversity than to providing tourist attractions.

14

The Clouds is a 423 BCE play by Aristophanes, originally written in ancient Greek. At that time, professional intellectuals called sophists taught customers rhetorical techniques to use in public speaking, along with providing instruction in other subjects. In the play, Aristophanes satirizes sophists as teaching students how to be persuasive without regard for what is morally good, as seen when the character

Which choice most effectively uses a quotation from a translation of *The Clouds* to illustrate the claim?

- A. Socrates, a sophist, says to a customer, "You talk nonsense. Begone; I can't teach you any longer."
- B. Socrates, a sophist, says that he studies astronomy while in a basket hanging a few feet off the ground because "I should not have rightly discovered things celestial if I had not suspended the intellect, and mixed the thought in a subtle form with its kindred air."
- C. Strepsiades encourages his son to learn to be a sophist, saying, "But go as quickly as possible and learn instead of me."
- D. Strepsiades hires a sophist to teach his son and says to the sophist, "But see that he learns those two styles of argument); the better, whatever it may be; and the worse, which, by maintaining what is unjust, overturns the better. If not both, at any rate the unjust one by all means."

15

Liverpool Football Club won more than half its home matches between 1947 and 2003, helping to distinguish the team as a top British professional soccer club. Additionally, Liverpool, whose home uniform color is mainly red, was more successful in home matches than was Oldham Athletic Association Football Club, whose home uniform color is not red. Research has shown that many people associate the color red with power and dominance. Past experiences with red objects such as stop signs can even cause people to respond to the color red with caution and hesitation. These findings, if applicable in the context of athletic competitions, could suggest that in matches played at Liverpool's home stadium, opponents may have _____.

Which choice most logically completes the text?

- A. been unaffected by the red clothing worn by fans in the stadium.
- B. played more aggressively than they would have if their own uniforms were red.
- C. been aware that Liverpool's uniform color affected their own performance.
- D. been influenced by the color of Liverpool's uniforms.

16

After he finally watched *The Maltese Falcon* (1941) at last year's annual film festival, the infamously disagreeable film critic wrote a scathing review. Before that, the film he least enjoyed ____ the more recent classic *Unforgiven* (1992).

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. had been
- B. was being
- C. has been
- D. is

17

Having devised an optical spectroscopy technique that allowed researchers to study ultrafast chemical reactions occurring within molecules, _____ known as femtochemistry. For this groundbreaking work, he won the King Faisal International Prize and the Nobel Prize in Chemistry.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. the introduction of a new scientific discipline was initiated by chemist Ahmed Zewail
- B. a new scientific discipline was introduced by Ahmed Zewail, a chemist
- C. chemist Ahmed Zewail's introduction of a new scientific discipline would be
- D. chemist Ahmed Zewail introduced a new scientific discipline

18

Maine governor ____ the first woman to serve in that role in the state's history—took office on January 2, 2019.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. Janet Mills,
- B. Janet Mills:
- C. Janet Mills—
- D. Janet Mills

19

In his *Naturalis historia*, Pliny the Elder praised Hipparchus's star catalog, a second-century BCE list of roughly 850 different stars' celestial positions. For centuries, scholars dreamed about locating a copy of this legendary lost ____ fantasy (partially) became reality in 2022, when researchers uncovered traces of the star catalog on a palimpsest, a reused parchment.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. work, that
- B. work and that
- C. work that
- D. work. That

20

In the 1960s, Sweden, Bulgaria, and dozens of other countries were allocated unique country dialing codes to route international calls. Most of the original two- or three-digit codes ____ by the International Telegraph and Telephone Consultative Committee later changed in response to geopolitical circumstances or telecommunications needs.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. assigned
- B. would be assigned
- C. had been assigned
- D. were assigned

21

Many works of the Roman poet Ovid (1st century BCE), including his tragic drama, *Medea*, have been lost to time. Antiquarians, to read one of Ovid's extant works—not one known only through references to it by other authors, that is—might instead procure a copy of his *Metamorphoses*, a poem about transformations in Greek and Roman mythology.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. hoped
- B. hope
- C. have hoped
- D. hoping

22

Generally, sleek vehicles are more aerodynamic than bulkier ones. The streamlined nose of the T-38 Talon jet, _____ helps it glide through wind with relative ease, while a boxy semitruck encounters more wind resistance, making it less aerodynamic.

Which choice completes the text with the most logical transition?

- A. meanwhile,
- B. for example,
- C. additionally,
- D. however,

23

23. With their distinctive cone shapes and steeply sloping sides, the volcanoes Atitlán (Guatemala) and Tantalus (Hawaii) may look similar from afar. Gari Mayberry and other volcanologists, _____ can tell by how each was formed that Atitlán is a composite volcano, while Tantalus is a cinder cone volcano.

Which choice completes the text with the most logical transition?

- A. therefore,
- B. though,
- C. for example,
- D. in addition,

24

While researching a topic, a student has taken the following notes:

- Samuel Delaney is a US writer known for his science fiction.
- Delaney's science fiction novel *Babel-17* was published in 1966.
- The novel won a Nebula Award in 1967.
- The Nebula Awards are given each year to the best works of science fiction published in the US.

The student wants to indicate the title of a novel that won a Nebula Award. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Samuel Delaney is an award-winning US writer known for his science fiction.
- B. One of Samuel Delaney's novels was among the best works of science fiction published in the US.
- C. *Babel-17*, by Samuel Delaney, won a Nebula Award in 1967.
- D. Samuel Delaney published a science fiction novel in 1966.

25

While researching a topic, a student has taken the following notes:

- The human tongue contains taste receptors for a rich, savory flavor called umami.
- Umami is triggered by the compounds in a variety of foods, including tuna and blue cheese.
- Participants in a study tasted a sample of sea palm, a type of brown seaweed.
- They rated its umami intensity as moderate.
- The participants tasted a sample of bull kelp, another type of brown seaweed.
- They rated its umami intensity as high.

The student wants to emphasize a difference between the two seaweeds. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Some types of brown seaweed, like sea palm and bull kelp, trigger umami flavor in human taste buds.
- B. Sea palm is a type of brown seaweed, but so is bull kelp.
- C. After tasting two types of brown seaweed, sea palm and bull kelp, participants in a study found bull kelp's umami flavor to be the more intense of the two.
- D. While sea palm and bull kelp contain umami flavor, umami can also be found in tuna and blue cheese.

26

While researching a topic, a student has taken the following notes:

- The engineer Robert Fulton designed the *Clermont* steamboat in 1807.
- He designed it in New York City.
- *Clermont* was the world's first commercially successful steamboat.
- The city of Fulton, Missouri, is named after Robert Fulton.
- New York City's Fulton Street is named after him.

The student wants to indicate how Fulton, Missouri, got its name. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Fulton, Missouri, is named after Robert Fulton, designer of the first commercially successful steamboat.
- B. Designed in 1807 in New York City, *Clermont* was the first commercially successful steamboat.
- C. Fulton Street is in New York City, where the steamboat *Clermont* was designed in 1807.
- D. Fulton, Missouri, shares its name with Fulton Street in New York City.

27

While researching a topic, a student has taken the following notes:

- Generally, an object will heat up when twisted and cool down when untwisted.
- The twisting of an object is known as torsion.
- A 2019 study by researchers Zunfeng Liu and Ray Baughman tested the torsional heating and cooling of various fibers.
- They wanted to know whether torsional cooling could be used as a refrigeration method.
- When thermoplastic polyurethane (TPU) fiber was twisted, its average surface temperature increased by 6°C.
- When three-ply spandex rubber fiber was twisted, its average surface temperature increased by 14.6°C.

The student wants to present the study's research question. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Torsion, the twisting of an object, will generally cause that object to heat up.
- B. A 2019 study researched whether torsional cooling could be used as a refrigeration method.
- C. Researchers determined that when both fibers were twisted, the surface temperature of three-ply spandex rubber increased more than that of TPU.
- D. Torsional heating and cooling occurs when an object changes temperature while being twisted and untwisted.

1

Module
2

1

VERBAL

1

Software engineers often encourage users to create passwords that are fairly complicated and therefore difficult to guess. Nonetheless, research has shown that the more ____ approach to password selection seems to favor convenience over security—for example, the fifth most commonly used password in 2011 was the easily remembered “abc123.”

Which choice completes the text with the most logical and precise word or phrase?

- A. complex
- B. creative
- C. popular
- D. useful

2

Writer Lydia Davis observed that while traditional literary forms, such as the novel, are recognizable as such even as they evolve, there are more ____ forms that might, for example, borrow elements from both fiction and essays to make something unconventional. Davis's own very short literary pieces arguably fit in this category, since they straddle the line between prose and poetry.

Which choice completes the text with the most logical and precise word or phrase?

- A. amorphous
- B. customary
- C. dispersed
- D. neutral

3

The fact that publications by University of Manchester economist Rachel Griffith, who studies taxation and food economics, are so frequently cited in other scholars' work _____ the usefulness of her research for her peers—other economists clearly find her studies valuable for their own scholarship.

Which choice completes the text with the most logical and precise word or phrase?

- A. forestalls
- B. underscores
- C. overshadows
- D. belies

4

While modern composers may often get inspiration from past greats like Pyotr Ilyich Tchaikovsky, the extent of their influences is broad. The music of Ernesto Lecuona, for example, can be said to _____ elements of both the classical European tradition and the social, political, and cultural landscape of his native Cuba.

Which choice completes the text with the most logical and precise word or phrase?

- A. foretell
- B. neglect
- C. exhibit
- D. defy

5

The sloping tile roofs and picturesque façade of Mission San Francisco de Asís in San Francisco, California, exemplify the Spanish contribution to Californian architecture, an influence that is _____ throughout the state—architectural tourists visiting the Santa Fe Depot in San Diego, for example, can easily recognize how its style draws inspiration from the Spanish missions.

Which choice completes the text with the most logical and precise word or phrase?

- A. corroborated
- B. palpable
- C. disputed
- D. understated

6

The following text is adapted from Matthew Arnold's 1869 nonfiction book *Culture and Anarchy*.

The Times [a British newspaper], replying to some foreign strictures on the dress, looks, and behavior of the English abroad, urges that the English ideal is that every one should be free to do and to look just as he likes. But culture indefatigably tries, not to make what each raw person may like the rule by which he fashions himself, but to draw ever nearer to a sense of what is indeed beautiful, graceful, and becoming, and to get the raw person to like that.

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

- A. It presents an opinion with which the author disagrees.
- B. It suggests that opinions regarding culture change over time.
- C. It asserts that the English are not as well known for their sense of taste as they ought to be.
- D. It introduces an example that supports the author's main assertion

7

Text 1

Scholarship today overrepresents experimentally fragmented narrative structures, such as that of Ford Madox Ford's *The Good Soldier*, beyond the degree to which they actually influenced fiction in Britain and Ireland during the modernist period (roughly 1900–1945). Meanwhile, Stella Gibbons's *Cold Comfort Farm*, whose coherent, linear narrative structure recalls the fiction of previous centuries, attracts woefully little attention from scholars of modernism.

Text 2

Distant reading, or computer-assisted quantitative analysis of massive collections of digitized texts, can reveal stylistic elements that have heretofore escaped notice, despite being shared by numerous texts from the modernist period. For too long, scholars have focused on narrative fragmentation versus coherence, inhibiting inquiry into other points of stylistic correspondence among works that would enrich our understanding of the modernist canon.

Based on the texts, both the author of Text 1 and the author of Text 2 would most likely agree with which statement about scholarship on works from the modernist period in Britain and Ireland?

- A. Without a major shift in focus, the vision that it presents of fiction written in the period will continue to be unnecessarily limited.
- B. It must widen its focus to include aspects of modernist fiction beyond style, a productive but overrepresented site of inquiry.
- C. Instead of engaging in unproductive debates, it should work to rehabilitate the reputations of neglected modernist works.
- D. Its primary methods for analyzing fiction written in the period are growing obsolete as computer technology advances.

8

A student in a political science course is writing a paper on Aristotle's *The Politics*, in which Aristotle offers his opinion on political instability and gives advice on how constitutions can be preserved. Aristotle observes that different forms of government can fall in different ways—for example, oligarchies might grant power to military leaders during wartime who refuse to relinquish that power during peacetime—but some methods of preserving order apply across all forms of government. The student claims that in particular, Aristotle asserts that in a healthy state obedience to law must be as close to absolute as possible and that even minor infractions should not be ignored.

Which quotation from a philosopher's analysis of *The Politics* would best support the student's claim?

- A. "When contrasting different forms of government, Aristotle holds that 'oligarchies may last, not from any inherent stability in such forms of government, but because the rulers are on good terms both with the unenfranchised and with the governing classes.' That is, oligarchic leaders who wish to hold on to power will introduce members of disenfranchised classes into government in a participatory role."
- B. "When constructing his argument regarding the characteristics of a well-functioning government, Aristotle asserts that 'Transgression creeps in unperceived and at last ruins the state,' illustrating this idea with a comparison to frequent small expenditures slowly and almost imperceptibly chipping away at a fortune until it is ultimately depleted."
- C. "When Aristotle considers the health of constitutions, he states that 'Constitutions are preserved when their destroyers are at a distance, and sometimes also because they are near, for the fear of them makes the government keep in hand the constitution.' He holds that rulers who wish to see constitutions preserved must continually remind the populace of the dangers that would result from a constitutional collapse."
- D. "When Aristotle writes on the necessity of avoiding corruption in government, he proposes that 'every state should be so administered and so regulated by law that its magistrates cannot possibly make money.' In particular, he thinks oligarchies are particularly susceptible to corruption through bribery."

Month	Average high (°F)	Average low (°F)	Average male wing centroid size (mm)	Average female wing centroid size (mm)
June	80	56	2.01	2.31
October	67	44	1.98	2.29
July	87	62	2.02	2.31
May	73	50	1.98	2.27

Drosophila (fruit flies) have generation times of 10–12 days, so seasonal changes in humidity and other environmental conditions can drive seasonal fluctuations in chromosome rearrangements in species such as *D. robusta* and *D. subobscura*. *Drosophila* body size (for which wing centroid size serves as a proxy measure) correlates with reproductive fitness. Banu Şebnem Önder and Cansu Fidan Aksoy measured the wing sizes of members of a *D. melanogaster* population in Yeşilöz, Turkey, that were collected monthly between May and October over three years. Their research suggests that *Drosophila* collected in relatively cooler months should tend to have lower reproductive fitness, as is illustrated by the finding that...

Which choice most effectively uses data from the table to complete the assertion?

- A. the average female wing centroid size was smaller in May than in July.
- B. the average male wing centroid size was consistently smaller than the average female wing centroid size in all four months in the table.
- C. the average male wing centroid size was 1.98 mm in May but was 2.31 mm in June.
- D. the average monthly low temperature was lower in May than in June.

10

A student is writing an essay on the subject of cultured meat, which is grown in a laboratory and is intended to help reduce the number of livestock harvested for food. The student wants to make the case that cultured meat production may be useful in responding to an expected widespread change in the public's behavior.

Which quotation from a publication by a researcher would most effectively support the student's claim?

- A. "Some of the growth promoters that would be needed to produce large quantities of cultured meats are currently prohibited for farming purposes in the European Union."
- B. "A growing population that is including significantly more meat in its diet will contribute to an increasing demand for meat products in the 21st century."
- C. "Consumers tend to believe that using less packaging when selling meat products in stores would have a significant effect on the environment."
- D. "Researchers who advocate for the development of lab-grown meat claim that it's better than conventional meat because its nutritional content can be adjusted."

11

Elaine Ostrander led an international collaboration with Victor E. Zaltbert and other researchers to study the evolutionary history of size differences in modern dogs, including very small breeds such as chihuahuas. The researchers determined that among dogs as a whole, there are many different variations of the gene that regulate the production of IGF-1 (insulin growth factor 1), a hormone that promotes growth. After reviewing the study, a student concludes that these variations must account for the observed variation in body size among dog breeds.

Which quotation from a scientist not involved in the study would most directly undermine the student's conclusion

- A. "In fact, only one-third of the most prevalent dog breeds carry the same variant of the gene regulating IGF-1 production."
- B. "The researchers' conclusions regarding the IGF-1 gene may not apply to other species given that dogs vary in size more than any other group of land mammals does."
- C. "Variations of the IGF-1 gene result in substantial body size variance among dog breeds and may influence additional characteristics as well."
- D. "The gene that regulates IGF-1 production is one of multiple genes known to affect the size of dogs."

12

Neurobiologists Laura Cuaya, Raúl Hernández-Pérez, and colleagues investigated the language detection abilities of eighteen dogs raised in similar settings. The researchers monitored the brain activity of each dog as it listened to three recordings, one a mix of *The Little Prince* being read in Spanish, the second in Hungarian, and a third made up of random, short speech fragments of the first two, scrambled to disrupt their rhythm, tonality, and sentence structure. Each dog was familiar with either Spanish or Hungarian, but not both. The team concluded that the amount of previous language exposure a dog has received may influence its ability to distinguish familiar languages from unfamiliar ones.

Which finding from the study, if true, would most directly support the team's conclusion?

- A. Although the dogs' hearing sensitivity declined with age, dogs of all ages showed more brain activity in response to hearing the language they were accustomed to than in response to hearing the other language.
- B. The difference between the pattern of brain activity a dog showed when hearing the language it was accustomed to and the pattern of brain activity it showed when hearing the language it was *not* accustomed to was greatest among older dogs.
- C. The similarity between the pattern of brain activity a dog showed in response to hearing the scrambled recording and the pattern of brain activity it showed in response to hearing the language it was *not* accustomed to was greatest among older dogs.
- D. Dogs showed a different pattern of brain activity when hearing the language they were accustomed to than when hearing the scrambled recording, and the difference in brain activity increased with the age of the dog.

13

In November of 1993, Argentina liberalized its stock market, meaning that it began allowing foreign individuals and businesses to invest money in Argentinian companies. This was part of a wave of stock market liberalizations from the mid-1980s through the mid-1990s—Bangladesh in 1991, Nigeria in 1995, and so on. In an analysis of economic data from 1976 to 1993, Ross Levine and Sara Zervos found that liberalization did not tend to enduring increases in investment in companies based in countries that liberalized. Peter Blair Henry, however, found that, on average, investment in companies in liberalized countries increased significantly in the three years following liberalization. Taken together, these results suggest that _____.

Which choice most logically completes the text?

- A. Economists' expectations about the effect of liberalization on investment were largely correct.
- B. Companies typically do not benefit from liberalization until at least three years after liberalization occurs.
- C. Investment growth is likely to be more consistent in countries that liberalize than in countries that do not.
- D. Liberalization may provide a boost to investment that fades over time

14

Data collected by the Mars rover Curiosity at the Gale Crater's Murray Formation are suggestive of hydrological deposition of sediment in the distant past. To characterize the nature of the depositional environment, Frances Rivera-Hernández et al. analyzed the grain size of Murray Formation sediment, finding that although there are intervals of coarse grains, most of the sediment consists of fine grains that show signs of cracking due to episodic desiccation. Rivera-Hernández et al. concluded that the coarse grains are sandstone, which tends to be deposited by flowing water, whereas the fine grains are mudstone, which is slowly deposited by settling out of suspension in low-flow water, leading the researchers to posit that _____.

Which choice most logically completes the text?

- A. although the area of the Murray Formation experienced a prolonged period of dryness that prevented a lake from forming, water flowing from a distant source was present.
- B. a lake existed at the Murray Formation for a prolonged period, though the lake occasionally experienced drying and there were periods in which one or more streams were present.
- C. one or more streams existed at the Murray Formation for an extended period until being replaced by a lake that persisted for only a brief period before permanently drying.
- D. a stream-fed lake was present at the Murray Formation for an extended period, and although the streams experienced occasional drying, the lake did not.

15

Although the language of the Olmec civilization, which flourished in southern Mexico circa 1500 BCE–400 BCE, hasn't been identified, it likely belonged to the Mixe-Zoquean family, a group of related languages whose present-day representatives are spoken in an area corresponding to ancient Olmec sites. The family can be subdivided into a Zoque branch, which includes Copainalá Zoque, and a Mixe branch, which includes Isthmus Mixe. Many words in the Mayan languages—languages spoken in the region but otherwise unrelated to the Mixe-Zoquean family—are Mixe-Zoquean in origin and were likely borrowed during the period when the Olmecs dominated the entire area. Tellingly, all those words derive from the Zoque branch, suggesting that _____.

Which choice most logically completes the text?

- A. Isthmus Mixe and the other languages of the Mixe branch likely supplanted the languages of the Zoque branch sometime before 1500 BCE.
- B. the Mixe-Zoquean family had already diverged into the Mixe and Zoque branches by the time the Olmecs became the prevailing power in the region.
- C. the language of the Olmec civilization contributed words not only to Mayan languages but also to other languages in the Mixe-Zoquean family.
- D. the language of the Olmec civilization was likely the founding language of the family that includes Mayan languages.

16

Each year, the Nobel Prize in Literature is given to an author who has, in the words of its founder Alfred Nobel, "produced the most outstanding work in an idealistic ____." In 1960, for instance, judges recognized Saint-John Perse "for the soaring flight and the evocative imagery of his poetry which in a visionary fashion reflects the conditions of our time."

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. direction,"
- B. direction"
- C. direction" and,
- D. direction";

17

Mathematician Grigori Perelman, sometimes in conjunction with mathematicians Richard S. Hamilton and Shing-Tung Yau, ____ credited with proving the Poincaré conjecture. Having built on Hamilton's previous work to solve the proof, Perelman has insisted that Hamilton receive credit. Yau later found and closed gaps in Perelman's proof, persuading some mathematicians that he deserves credit as well.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. have been
- B. are
- C. are being
- D. is

18

Objects orbiting in the outer solar system between Jupiter and Neptune, such as 52975 Peyllarus, a 62-kilometer-wide body first detected in 1998, ____ both asteroidal and comet-like characteristics, being closer in size and appearance to asteroids but traveling in an elliptical orbit more closely resembling that of comets.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. has exhibited
- B. exhibits
- C. exhibit
- D. is exhibiting

19

Researchers studying how agricultural fertilizers impact grassland arthropod populations have employed several collection methods. A team led by researcher L. Brian Patrick collected arthropods with ____; another research team, led by Kimberly J. La Pierre, gathered them with bug vacuums.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. pitfall traps for instance
- B. pitfall traps, for instance;
- C. pitfall traps; for instance,
- D. pitfall traps, for instance,

20

On most of the world's beaches, sand is a predictable cream or beige color. The sand at Les Sables Roses Beach in French Polynesia is a strikingly different ____ sand gets its shade from deposits of gray- and tan-hued quartz and feldspar; deposits of crushed coral and other organic matter lend the sand at Les Sables Roses Beach a colorful pink tint.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. shade, though. Most
- B. shade, though most
- C. shade: though most
- D. shade, though, most

21

The parks of Chicago, Illinois, seem to be making people happier. In a 2022 study, researchers ____ for a relationship between the physical location in which a social media post was created and the content of that post analyzed geotagged social media posts from Chicago. The team found that posts from the city's parks contained more words associated with happiness than other posts did.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A. looking
- B. were looking
- C. looked
- D. had looked

22

Marcel Duchamp intended his 1917 so-called ready-made sculpture *Fountain* to challenge then-prevailing conceptions about the nature of art. _____ Duchamp's *Fountain* did just that, raising the question of whether displaying any object in an art gallery could be said to transform the object—even, as Duchamp's sculpture was, a urinal—into a legitimate work of art.

Which choice completes the text with the most logical transition?

- A. Similarly,
- B. Instead,
- C. Indeed,
- D. In addition,

23

While researching a topic, a student has taken the following notes:

- The Mohs scale of mineral hardness is a ten-point scale that orders minerals by hardness based on their ability to scratch other minerals.
- Minerals with larger numbers are harder than minerals with smaller numbers and can leave visible scratches on them.
- Minerals with smaller numbers are softer than minerals with larger numbers and cannot leave visible scratches on them.
- The mineral talc has a Mohs scale number of 1.
- The mineral fluorite has a Mohs scale number of 4.
- The mineral topaz has a Mohs scale number of 8.

The student wants to emphasize how hard fluorite is in relation to other minerals. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Fluorite is hard enough to scratch talc but not hard enough to scratch topaz.
- B. Topaz, talc, and fluorite can be ordered by hardness based on their ability to scratch other minerals.
- C. In the Mohs scale of mineral hardness, topaz (8) is ranked higher than talc (1).
- D. Topaz is hard enough to scratch both talc and fluorite.

24

While researching a topic, a student has taken the following notes:

- A copyright prevents a book's contents from being reproduced (published) without permission from the copyright holder.
- When a book's copyright expires, the book enters the public domain and can be legally reproduced by anyone.
- *Harmonium* is a poetry collection by Wallace Stevens.
- It entered the public domain in 2019.
- *Barren Ground* is a novel by Ellen Glasgow.
- It entered the public domain in 2021.

The student wants to emphasize a similarity between *Harmonium* and *Barren Ground*. Which choice most effectively uses relevant information from the notes to accomplish this goal?

A. The year was 2021, and the copyright to Ellen Glasgow's *Barren Ground* had finally expired.

B. *Harmonium*, a poetry collection by Wallace Stevens, and *Barren Ground*, a novel by Ellen Glasgow, recently entered the public domain.

C. *Harmonium* is a poetry collection, whereas *Barren Ground* is a novel.

D. *Harmonium*, a poetry collection by Wallace Stevens, entered the public domain in 2019, unlike Ellen Glasgow's novel *Barren Ground*, which would do so later.

25

While researching a topic, a student has taken the following notes:

- *Bird Spirit* is a 1981 black-and-white linocut print by Inuit artist Kootoo Munno.
- It depicts a tranquil, everyday scene (a pair of long-necked birds).
- *¡Sera toda nuestra!* ("It will all be ours!") is a 1977 color linocut print by American artist Carlos Cortéz.
- It features a scene with an explicitly political point of view (a group of laborers preparing to go on strike).
- Relief printing is a technique in which an image is carved onto a printing block, covered in ink or paint, and stamped onto paper.
- Lino cutting is a type of relief printing that uses linoleum tile as the printing block.

The student wants to contrast the subject matter of the two prints. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. The scenes depicted in both works were first carved onto a printing block, then stamped onto paper; however, one work is a linocut, while the other is a relief print.
- B. The print by Cortéz is a color linocut; by contrast, Munno's is a relief print.
- C. Cortéz's print expresses an explicitly political point of view, while Munno's depicts a tranquil, everyday scene.
- D. Cortéz made *¡Sera toda nuestra!* ("It will all be ours!") in 1977, while Munno made *Bird Spirit* later, in 1981.

26

While researching a topic, a student has taken the following notes:

- A sailing trip that goes in a complete circle around the world is called a circumnavigation.
- Most circumnavigations include stops on land.
- Clarisse Cremer is a French sailor.
- Cremer sailed the boat *Banque Populaire X* on a nonstop, 87-day circumnavigation.
- Tapio Lehtinen is a Finnish sailor.
- Lehtinen sailed the boat *Asteria* on a nonstop, 322-day circumnavigation.

The student wants to make a generalization about circumnavigations. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. Most circumnavigations include stops on land, but some circumnavigations are nonstop.
- B. Lehtinen sailed *Asteria* around the world, while Cremer sailed *Banque Populaire X*.
- C. A circumnavigation is defined as a sailing trip that goes in a complete circle around the world.
- D. Lehtinen and Cremer have both embarked on sailing journeys around the world, also called circumnavigations.

27

While researching a topic, a student has taken the following notes:

- Malapportionment is the over- or underrepresentation (relative to population size) of electoral districts in a governing body.
- It is a common feature of representative governments.
- There are 169 seats in Norway's supreme legislature (the Storting).
- Seats are distributed by a formula that awards 1 point per resident and 1.8 points per unit of land.
- Less populated rural districts with large tracts of land receive a disproportionate number of seats compared to smaller but more populated urban districts.

The student wants to refute a claim that malapportionment in the Storting favors small urban districts. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A. A common feature of representative governments, malapportionment occurs when electoral districts are over- or underrepresented.
- B. Less populated rural districts are disproportionately underrepresented in the Storting, creating an unfair advantage for smaller but more populated urban districts.
- C. It's untrue that malapportionment in the 169-seat Storting favors small urban districts; rather, the formula for distributing seats overrepresents more populated districts.
- D. Awarding more points per unit of land than points per resident, the formula for distributing Storting seats overrepresents less populated rural districts with large tracts of land.

	R&W 1	R&W 2	Math 1	Math 2
1	B	C	B	D
2	B	A	A	A
3	C	B	A	D
4	C	C	35	D
5	D	B	D	C
6	A	A	B	-4/9
7	B	A	B	4
8	A	B	D	C
9	A	A	C	4/5
10	C	B	216	A
11	D	D	A	B
12	A	B	C	D
13	C	D	13/6	B
14	D	B	A	D
15	D	B	4	D
16	A	D	131	4
17	D	D	C	A
18	C	C	A	4979/5000
19	D	D	A	55/57
20	A	B	4	C
21	D	A	1130	A
22	B	C	C	23/2
23	B	A		
24	C	B		
25	C	C		
26	A	A		
27	B	D		

Reading and Writing Module 1

33 QUESTIONS

1

Smart watches and wireless speakers tend to contain batteries that can't be easily _____. Sustainability researcher Mariana López Davila warns that because new batteries can't be put in once the old ones no longer work, the gadgets stop functioning and are usually disposed of as trash.

Which choice completes the text with the most logical and precise word or phrase?

- A) replaced
- B) prevented
- C) invented
- D) rated

2

The following text is adapted from Kenneth Grahame's 1908 novel *The Wind in the Willows*. The Mole is dazed after briefly meeting a stranger while traveling with a friend.

[The] Mole stood still a moment, held in thought. As one wakened suddenly from a beautiful dream, who struggles to recall it, and can re capture nothing but a dim sense of the beauty of it, the beauty! Till that, too, fades away in its turn.

As used in the text, what does the word "recall" most nearly mean?

- A) Deny
- B) Remember
- C) Start
- D) Overlook

3

There is no doubt that Irwin Rose must have proved himself to be extraordinarily ____ understanding some of the most advanced concepts in the field of chemistry --- in 2004 his remarkable talent and hard work was recognized when he was among those awarded the Nobel Prize in Chemistry for "the discovery of ubiquitin-mediated protein degradation."

Which choice completes the text with the most logical and precise word or phrase?

- A) modest about
- B) adept at
- C) lighthearted about
- D) dispassionate in

4

Some robots such as Wabian (developed in 1995) and ASIMO (developed in 2011) feature humanoid characteristics like the ability to respond to voice commands so that people will find it easier to interact with them. While these features can help to ____ feelings of comfort in people, a robot that looks too human can fall into the "uncanny valley," meaning that its appearance unintentionally unsettles those who encounter it.

Which choice completes the text with the most logical and precise word or phrase?

- A) constrict
- B) counterbalance
- C) repudiate
- D) engender

Economists have long observed that firms in related industries tend to cluster in the same area, as is the case in Sheffield, UK, where many initial iron and steel processing firms as well as iron and steel tube manufacturers are located. The factors causing such clustering are ____: what drives firms in certain industries to cluster may not be especially relevant among other industries.

Which choice completes the text with the most logical and precise word or phrase?

- A) variable
- B) impressive
- C) unknown
- D) focused

The following text is adapted from Adib Khorram's 2018 novel *Darius the Great Is Not Okay*. Darius, a teenager from the United States, is visiting his grandparents, Babou and Mamou, in Iran. They are preparing for a holiday celebration.

I felt like a tourist.

But Babou fussed with my cap a little more, even though Mamou had already gotten it settled. He looked me in the eye from time to time, like he was looking for something, and thought maybe just maybe I had it in me after all. Babou hummed to himself as he smoothed out my shoulder seams and rested his hands on them.

"I am glad you are here to see this, Darioush-jan."

Maybe I wasn't such a tourist.

Which choice best states the main purpose of the text?

- A) To demonstrate that Babou and Darius aren't very interested in going to new places
- B) To suggest that Babou is planning to visit Darius in the United States soon
- C) To emphasize that Darius has been looking forward to an event
- D) To show that Babou affects the way Darius thinks of himself

The food industry has long used thermal technologies to preserve food in large batches. Recent advancements in microwave heating were made through research in Brazil on the preservation of green coconut water. Microwave heating is generally considered to be an improvement over more conventional thermal preservation methods: whereas conventional methods transfer energy from the surface of a food to its interior, microwave heating uses electromagnetic waves to generate heat within the food itself, thus reducing industrial cooking times.

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

- A) It explains why conventional heating methods are popular in commercial applications and proposes a shift away from these methods.
- B) It identifies an advantage that microwave heating has over conventional thermal preservation methods.
- C) It emphasizes the simplicity of microwave heating technologies.
- D) It suggests that there are possible flaws in microwave heating technologies that have not yet been well researched.

In a large community science effort, biologist Abigail Merrill and colleagues collaborated with hundreds of students and other amateur science enthusiasts for more than three years to study how butterfly color and weather conditions relate to butterfly behavior. They found that white butterflies were observed on green flowers more often than any other butterflies were, and that butterflies were observed to feed more often on cloudy days than on other days.

Which choice best states the main idea of the text?

- A) Collaboration between professional scientists and members of the public is especially useful when studying the behavior of butterflies and other flying insects.
- B) A recent study suggested that butterflies' coloring seems to be less relevant to their behavior than weather conditions.
- C) A large study suggested that butterfly color and weather conditions might influence the behavior of certain butterflies.

D) Weather conditions and butterfly color seem to have less influence on butterfly behavior than the location where the butterflies are studied does

9

President Richard Nixon is most famous for his participation in the 1970s Watergate political scandal, a convoluted tale of criminality and eroded ethics involving a constellation of associates such as White House Counsel Chuck Colson and White House Counsel John Dean. But Nixon's legacy is complex: he has been praised for his role in creating the Environmental Protection Agency, and he once made an attempt at reforming United States health care policy that is arguably a precursor to the Affordable Care Act, which became law during the Barack Obama administration.

Which choice best states the main idea of the text?

- A) Chuck Colson and John Dean were significant figures in the presidency of Richard Nixon.
- B) Richard Nixon's reputation is primarily due to the actions of his associates.
- C) Some of Richard Nixon's policies influenced the policies of later presidential administrations.
- D) Richard Nixon is commonly linked with an infamous historical event, but this overshadows some of his notable achievements.

10



Argentina, Brazil, and the United States are among the world's leading producers of maize (corn), and each country exports a certain percentage of maize each marketing year, which runs from March to February in Argentina and Brazil and from September to August in the United States. A student is researching those percentages and finds that for the marketing year 2012/2013, the percentage of maize exported by ____

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

- A) Argentina decreased from the previous marketing year but remained the highest among the three countries.
- B) Brazil exceeded the percentage exported by Argentina for the first time.
- C) the United States reached its highest point during the five marketing years.
- D) Brazil increased from the previous marketing year but remained lower than the percentage exported by the United States.

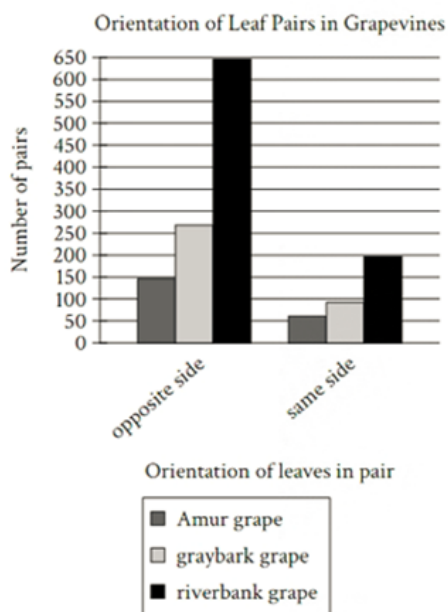
11

A student is writing a research paper on the history of irrigation in the United States, situating the development of the Rowena Reservoir (created in Los Angeles County, California, in 1901) in a larger historical context. The student claims that California's climate renders irrigation an essential component of agriculture in some parts of the state but not in others.

Which quotation from a study of California agriculture best supports the student's claim?

- A) "The usefulness of irrigation infrastructure in California today cannot be overstated, since it is the most common means of conveying water for agricultural purposes."
- B) "Sprinkler irrigation systems are a contemporary way of irrigating that requires machinery to spray water in all directions. These are currently used throughout the United States and are especially prevalent in California."
- C) "The irrigation system developed by the Hohokam people in the 7th century CE in what is now Arizona was simple, but this system applied hydraulic engineering design features that are in use today throughout California."
- D) "Natural humidity, which renders irrigation unnecessary or reduces its importance in the northern reaches of California, gradually decreases toward the sun-scorched but nonetheless fertile valleys of the southern part of the state."

12



Auxins are a class of hormones that influence plant growth, including leaf orientation (the tendency of leaves to be larger on one side of their long central axis than the other). University of California, Berkeley biologist Ciera Martinez and colleagues noted that in certain plants in which leaves grow in pairs, auxins will typically be concentrated in opposite sides of each leaf in the pair (e.g., on the left side of one leaf in the pair and the right side of the other). Accordingly, they hypothesized that paired leaves should tend to show opposite-side orientation, and they tested their hypothesis by examining paired leaves from several species of grapevines.

Which choice best describes data from the graph that support Martinez and colleagues' hypothesis?

- A) Although the number of leaf pairs showing same side orientation is fairly high in the riverbank grape, it is much lower in both the Amur grape and graybark grape.
- B) In the riverbank grape, graybark grape, and Amur grape, all the leaf pairs show opposite -side orientation.
- C) Although the exact ratio varies by species, the riverbank grape, graybark grape, and Amur grape all show more leaf pairs with opposite-side orientations than with same-side orientations.
- D) The number of leaf pairs showing opposite side orientation is fairly high in the graybark grape, but not as high as it is in the riverbank grape.

13

Studies of the Effects of Tilling vs. No Tilling on Crop Yields

Authors	Crop	Crop yield with tilling (kilograms per hectare)	Crop yield with no tilling (kilograms per hectare)
Carlos Cantero-Martínez and colleagues	winter barley	2,693	3,136
Danijel Jug and colleagues	winter wheat	4,860	3,910
Fuseini Issaka and colleagues	rice	6,400	6,300
Yao Guo and colleagues	spring wheat	7,420	8,730

Danijel Jug and colleagues found that tilling --- the practice of turning soil with hoes, plows, or other machines before planting crops --- was associated with an increased yield of winter wheat. But some studies of other crops have found the opposite effect, raising the question of whether the increase in yield found by Jug and colleagues is specific to their study crop. However, this doesn't seem to be the case: _____

Which choice most effectively uses data from the table to complete the assertion?

- A) a study using winter wheat yielded 4,860 kilograms per hectare with tilling and only 3,910 kilograms per hectare without tilling.
- B) Fuseini Issaka and colleagues found a similar association in a study using rice.
- C) Yao Guo and colleagues reported an even larger positive effect of tilling on the yield of spring wheat.
- D) crop yields with tilling have ranged from 2,693kilograms per hectare for winter barley to 7,420kilograms per hectare for spring wheat.

14

All stainless steel contains varying amounts of iron, carbon, and corrosion-inhibiting chromium. However, ferritic stainless steel, often used for induction cookers, contains a higher percentage of chromium (at least 10.5%) than does austenitic stainless steel and a higher concentration of iron, which is responsible for its magnetic properties. Unlike ferritic stainless steel, austenitic stainless steel has a face-centered cubic crystalline structure resulting from the addition of nickel to the alloy. Austenitic stainless steel has two subtypes: the 300 series, often used for storage containers, and the 200 series, which has less nickel and more nitrogen than the 300 series and is used for dishwashers. Thus, stainless steel used to manufacture _____

Which choice most logically completes the text?

- A) both storage containers and dishwashers will have a face-centered cubic crystalline structure, but stainless steel used to manufacture storage containers will have less nickel than stainless steel used to manufacture dishwashers will.
- B) storage containers will have less nitrogen in its composition than stainless steel used to manufacture dishwashers will.
- C) storage containers will have a concentration of nitrogen greater than 10,5%, while stainless steel used to manufacture dishwashers will not.
- D) storage containers will have similar magnetic properties to stainless steel used to manufacture induction cookers.

15

In her large scale sculpture Casa-Isla, artist Edra Soto included references to her childhood in Puerto Rico. For example, the sculpture's steel panels have a crisscrossing pattern inspired by the iron gates _____

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) Soto would see in her neighborhood.
- B) Soto would see in her neighborhood?

- C) would Soto see in her neighborhood?
- D) would Soto see in her neighborhood.

16

By analyzing the level of radioactive decay within a fossil specimen, scientists can establish the age of that fossil with a high degree of precision. When radioactive elements aren't present, scientists turn to ____ analysis of Earth's sediment layers (strata) to estimate how old a fossil is based on the age of the strata in which the fossil is found.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) stratigraphy (the
- B) stratigraphy --- the
- C) stratigraphy: the
- D) stratigraphy, the

17

As an object-oriented computer programming language, Python is used by coders like Black Girls Code founder Kimberly Bryant ____ programs by manipulating "objects" (that is, specifically defined variables or combinations of variables) into interacting with each other. Conversely, Prolog, used in software development and artificial intelligence, is not an object oriented language.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) created
- B) is creating
- C) create
- D) to create

18

Many of the cities and ____ are known by nicknames that correspond to one of their notable features, like landscape, climate, famous residents, or chief exports. For example, the Puerto Rican municipality of Arecibo has also been called "the Villa of Captain Correa," a nickname that alludes to what the area is well known for: Antonio de los Reyes Correa, the 17th-century army captain who once defended the town.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) towns, that dot the island of Puerto Rico,
- B) towns that dot the island of Puerto Rico
- C) towns, that dot the island of Puerto Rico
- D) towns that dot the island of Puerto Rico,

19

While the greater adjutant can be found in places like Tram Chim in Vietnam and Hakaluki Haor in Bangladesh, more than 80 percent of this endangered stork species is found in Assam, India. There, wildlife biologist Dr. Purnima Devi Barman is on the frontlines of conservation efforts that, through community involvement and scientific ____ aim to bring adjutants back from near extinction.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) study ---
- B) study,
- C) study
- D) study:

20

Stefan Dimitrescu, a Romanian impressionist painter whose works are distinctive for their heavy brushstrokes, ____ frequently included in the early twentieth-century art movement the Balchik School, whose members were known for depicting the ambiance of the Romanian seaside town.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) have been
- B) were
- C) is
- D) are

21

As a behavioral economist, Francesca Gino of Harvard Business School examines human economic behavior through a lens that, _____ elements of psychology and economics, illuminates how and why (and to what effect) people make particular choices.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) combines
- B) combining
- C) combine
- D) is combining

22

In his essay "Of Sleep," French philosopher Michel de Montaigne explores a relatively light subject, but he addresses heavier fare in "That Our Mind Hinders Itself." Regardless of subject matter, Montaigne works to question his own perspective throughout his essays. _____ his personal motto was "What do I know?"

Which choice completes the text with the most logical transition?

- A) Still,
- B) Conversely,
- C) Nowadays,
- D) Fittingly,

23

The World Cup of men's soccer, one of the biggest sporting events on the planet, brought 32 national teams from six continents to the host country, Russia, in 2018. The event, which is held every four years, has expanded greatly since it was played in Chile in 1962. _____ the World Cup included only 16 teams, all from Europe and the Americas.

Which choice completes the text with the most logical transition?

- A) On the other hand,
- B) As a result,
- C) Then,
- D) Similarly,

24

While researching a topic, a student has taken the following notes:

- In 1897, twenty Black US Army infantrymen rode bicycles from Montana to Missouri.
- The 1,900-mile journey took forty-one days.
- The goal was to test the idea of forming a military bicycle corps.
- In 2022, Erick Cedeño, a Black long-distance cyclist, reenacted the journey.
- Cedeño wanted to honor the infantrymen on the journey's 125th anniversary.

The student wants to emphasize how far the infantrymen traveled. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The goal of the 1897 journey was to test the idea of forming a military bicycle corps.
- B) Over a century later, Erick Cedeño honored the infantrymen by reenacting their 1897 journey.
- C) The 125th anniversary of the infantrymen's journey was in 2022.
- D) The US infantrymen rode their bicycles from Montana to Missouri traveling a total of 1,900 miles.

While researching a topic, a student has taken the following notes:

- Mary Kang is a Korean American portrait photographer.
- She is based in New York City and in Austin, Texas.
- One of Kang's photographs features artist Dominique Fung.
- In the portrait, Fung is seated on the floor.
- Five of Fung's paintings are resting against the wall behind her.

The student wants to describe where Fung is in the photograph to an audience already familiar with Kang and Fung. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) Five paintings by artist Dominique Fung can be seen in the background of Mary Kang's photograph.
- B) In Kang's portrait of her, Fung is seated on the floor, with five of her paintings resting against the wall behind her.
- C) Mary Kang is a photographer based in both New York City and Austin, Texas.
- D) Dominique Fung is in a photograph by Mary Kang, a portrait photographer based in New York City and Austin, Texas.

While researching a topic, a student has taken the following notes:

- Congo is a country in Central Africa.
- A high percentage of Congo's population (41.5 percent) is under fifteen years old.
- It has the twenty-sixth-largest under-fifteen population in the world.
- Roughly 40 percent of Africa's population is under fifteen years old --- the highest of any continent.
- According to the United Nations (UN), Africa's "high number of young people is an opportunity for the continent's growth --- but only if these new generations are fully empowered to realize their best potential."

The student wants to emphasize the global rank of Congo's youth population. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) "Only if these new generations are fully empowered to realize their best potential," says the UN, will Africa's high percentage of young people lead to the continent's growth.
- B) Making up roughly 40 percent of the continent's total population, Africa's under-fifteen population offers "an opportunity for the continent's growth," according to the UN.
- C) With 41.5 percent of its population under fifteen years of age, Congo has the twenty sixth-largest population for that age range in the world.
- D) Africa's high population of young people is due in part to the high percentage of young people in Congo.

While researching a topic, a student has taken the following notes:

- The Future of Nostalgia is a scholarly book by literary theorist Svetlana Boym.
- The book explores the concept of nostalgia from various angles.
- Chapter 16 discusses the nostalgic home décor of Russian émigrés.
- Chapter 17 discusses various skeptics' takes on the concept of nostalgia.
- In chapter 17, Boym writes, "The poethics of nostalgia combines estrangement and human solidarity, affect and reflection."

The student wants to explain what Svetlana Boym writes about in chapter 16. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) As Svetlana Boym writes in the seventeenth chapter of her book, "The poethics of nostalgia combines estrangement and human solidarity, affect and reflection."
- B) Literary theorist Svetlana Boym discusses the nostalgic home décor of Russian émigrés in chapter 16 of her book.
- C) After discussing the nostalgic home décor of Russian émigrés, Svetlana Boym goes on to discuss various skeptics' takes on the concept of nostalgia.

D) Svetlana Boym's *The Future of Nostalgia* explores the concept of nostalgia from various angles.

Reading and Writing Module 2

33 QUESTIONS

1

The following text is from Charles Chesnutt's 1905 novel *The Colonel's Dream*. Mr. French and Mr. Kirby work together.

Mr. French, the senior partner, who sat opposite Kirby, was an older man --- a safe guess would have placed him somewhere in the debatable ground between forty and fifty; of a good height, as could be seen even from the seated figure, the upper part of which was held erect with the unconscious ease which one associates with military training.

As used in the text, what does the word "placed" most nearly mean?

- A) Contracted
- B) Changed
- C) Estimated
- D) Arranged

2

The results of randomized clinical trials testing the efficacy of common medical interventions sometimes fail to _____ conclusions that practitioners reach based on their real-world observations of patients. While there are several possible reasons for this, one is that practitioners may overlook confounding variables that account for the results they attribute to the interventions in question.

Which choice completes the text with the most logical and precise word or phrase?

- A) circumvent
- B) corroborate
- C) disseminate
- D) implement

3

Louise Arner Boyd, who led several scientific expeditions off the coast of Greenland in the 1930s, undoubtedly accomplished much, but her place in our historical memory is perhaps more _____ than that of a noteworthy "first" such as Enid Gordon-Gallien, who led the expedition that first mapped the area around Kalambo Falls between Zambia and Tanzania, a deed for which she will always be remembered.

Which choice completes the text with the most logical and precise word or phrase?

- A) uncertain
- B) enduring
- C) deserving
- D) conspicuous

4

In the 2010s, the price of vintage Teenage Mutant Ninja Turtles action figures rose dramatically, which had the counterintuitive effect of _____ demand: buyers who hadn't previously wanted to purchase old action figures suddenly thronged the market, believing prices would continue to rise and the toys could be resold later at a profit.

Which choice completes the text with the most logical and precise word or phrase?

- A) monetizing
- B) stabilizing
- C) precipitating

5

In 2013 Fredrik Jutfelt and Maria Hedgarde published a study concluding that ocean acidification has a strong effect on the behavior of *Gadus morhua*, a species of fish. However, Jutfelt and Hedgarde's study relied on a mean sample size of only about 16 fish. In a 2022 review of various scientists' conclusions about the impacts of ocean acidification on fish behavior, Josefin Sundin and colleagues caution that relying on such a relatively small sample size can increase the potential for biased analysis. Such analysis, in turn, can contribute to reports of exaggerated effects.

Which choice best states the main purpose of the text?

- A) To discuss an aspect of ocean acidification that is frequently overlooked
- B) To explain how the behavior of a fish species has changed over time
- C) To present a debate between two research teams about a cause of ocean acidification
- D) To note a potential concern about the findings of a scientific study

6

The following text is from Lady Gregory's 1904 play *Spreading the News*. Mrs. Tarpey, Bartley, and Mrs. Fallon have been buying and selling goods at the local fair.

MRS. TARPEY: Good morrow, Bartley Fallon; good morrow, Mrs. Fallon. Well, Bartley, you'll find no cause for complaining today; they are all saying it was a good fair.

BARTLEY: (Raising his voice.) It was not a good fair, Mrs. Tarpey. It was a scattered sort of a fair. If we didn't expect more, we got less. That's the way with me always; whatever I have to sell goes down and whatever I have to buy goes up. If there's ever any misfortune coming to this world, it's on myself it pitches, like a flock of crows on seed potatoes.

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

- A) It mounts a counterargument to a claim that Bartley made about the fair.
- B) It indicates the degree to which Mrs. Tarpey doubts a certain event will occur.
- C) It presents a vivid image to emphasize a claim that Bartley makes.
- D) It describes an event that Bartley observed at the fair.

7

Historians have argued that a crucial component of the Civil Rights Movement's success in the 1960s was the Southern Christian Leadership Conference's Citizen Education Program (CEP), which invited promising activists from across the South to its one-week training sessions in Dorchester, Georgia. Led by experienced organizers such as Dorothy Cotton and Septima Clark, CEP attendees --- more than 7,000 in all --- participated in workshops on topics ranging from public speaking to legal doctrine before returning home and using their newly acquired knowledge to spearhead local civil rights initiatives.

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

- A) It illustrates the CEP organizers' efforts to educate participants on a wide variety of topics.
- B) It establishes that criticism of the CEP was limited to a few individuals in the Southern Christian Leadership Conference.
- C) It underscores the extent of the CEP's impact on the Civil Rights Movement of the 1960s.
- D) It suggests that CEP attendees held a diverse array of opinions about the Southern Christian Leadership Conference's political philosophy.

8

Asteroid 6478 Gault has experienced intermittent mass loss since at least 2013, but in contrast to some other asteroids with repeated mass-loss episodes, 6478 Gault has not lost mass at its perihelion (the closest point of its orbit to the Sun), and thus the loss is not attributable to solar energy driven ice vaporization. And as Jane X. Luu et al. point out, the singular nature of impact ejection makes it untenable as an account of multiple loss episodes of similar duration over several years. Instead, Luu et al. are likely correct that 6478 Gault is shedding mass due to rotational instability.

Which choice best describes the overall structure of the text?

- A) It discusses a physical process, evaluates possible causes of that process, and then states that a persuasive account of the process has yet to be put forward.
- B) It introduces a natural phenomenon, refutes two potential explanations for that phenomenon, and then presents a third explanation for that phenomenon that the author regards as plausible.

C) It presents a scientific observation, describes a contrast between that observation and other observations, and then explains why those other observations should not be considered credible.

D) It describes an astronomical finding, discusses competing theories about that finding that the author regards as flawed, and then describes new evidence that supports an alternative theory.

9

Text 1

In South Dakota, many buildings and other structures rest on soil that is expansive, meaning that it swells or shrinks as its moisture level changes. Civil engineer Jay X. Wang has noted that the effects of expansive soil appear slowly in the form of gradually growing cracks in foundations, walls, and pavements. Because these effects are incremental and can generally be repaired (though at some cost), structures in South Dakota are typically not built to resist them.

Text 2

In a 2021 study, Rubayet Bin Mostafiz and colleagues calculated that in the state of Louisiana alone, the annual cost of damage caused by expansive soils reaches nearly \$90 million. But they note that this damage can be mitigated: building vapor barriers between structural foundations and the soil can significantly reduce the effects of soil swelling and shrinking.

Based on the texts, how would Rubayet Bin Mostafiz and colleagues (Text 2) most likely respond to the information presented in Text 1?

- A) They would suggest that engineers in South Dakota consider the cost of reinforcing the vapor barriers between existing structural foundations and the soil.
- B) They would argue that engineers in South Dakota have misjudged the effectiveness of the techniques they use to reduce the effects of expansive soil.
- C) They would encourage engineers in South Dakota to insert vapor barriers between new structures' foundations and the surrounding soil.
- D) They would recommend that engineers in South Dakota measure the moisture level in the soil beneath proposed structures before beginning construction.

10

The following text is from Nathaniel Hawthorne's 1830 short story "Sir William Phips."

Few of the personages of past times (except such as have gained renown in fireside legends as well as in written history) are anything but mere names to their successors. They seldom stand up in our imaginations like men. The knowledge, communicated by the historian and biographer, is analogous to that which we acquire of a country by the map, minute, perhaps, and accurate, and available for all necessary purposes, but cold and naked, and wholly destitute of the mimic charm produced by landscape painting.

Which choice best states the main idea of the text?

- A) The creativity of historians is restricted by the need to write strictly truthful works.
- B) Painting is a superior form of art to mapmaking.
- C) Historians are more interested in the lives of famous people than in those of the less famous.
- D) The lives of historical figures are usually documented as a collection of facts, rather than as a representation of their personalities.

11

Thomas Piketty and other historians of capitalism rarely discuss domestic capitalism in Africa before the period of European colonization, implicitly presenting capitalism as external to and imposed on Africa. Crislayne Alfagali and other Africanist scholars have shown, however, that in parts of Africa, export-oriented manufacturing, the existence of salaried labor, and other features of capitalism predated colonization. One reason for this discrepancy is that historians of capitalism tend to focus on longitudinal economic data drawn from archival records, which do not exist for much of precolonial Africa.

Which statement about Alfagali and other Africanist scholars is best supported by information in the text?

- A) They likely have a different view about which activities should be considered capitalist in nature than historians of capitalism do.
- B) They likely view capitalism as having been more beneficial for Africa than historians of capitalism do.
- C) They likely differ from historians of capitalism in the methods they use to derive longitudinal economic data from archival records.

D) They likely make use of different types of evidence than historians of capitalism typically rely on.

12

Geneticist Elaine Ostrander led an international collaboration in which Heather J. Huson and other researchers investigated the evolutionary history of size variation in modern dogs. The researchers identified multiple versions of the gene regulating the production of IGF-1 (insulin-like growth factor 1) in dogs and found that dogs of the same breed consistently share the same version of the gene. In a discussion of the study, a student hypothesizes that small breeds of dogs (for example, miniature schnauzers) must share a version that represses IGF-1 production that would otherwise confer larger body size.

Which finding, if true, would most directly weaken the student's claim?

- A) The majority of the most prevalent dog breeds have limited activity in the gene that regulates IGF-1 production.
- B) The gene that regulates IGF-1 production is not the only gene that influences body size in dogs but is the only such gene that shows within-breed version consistency.
- C) Some breeds with small body sizes and low IGF-1 concentrations have a different version of the gene regulating IGF-1 production than do miniature schnauzers.
- D) The degree of size variation among dogs is greater than that of any other land-based mammal.

13

Scholars cite *Mr. President*, the 1946 novel by Guatemalan author Miguel Angel Asturias, as a foundational text of magical realism, the Latin American style of fiction in which antirealistic plot devices often borrowed from the folkloric traditions of Indigenous and colonial societies in the Americas are deployed in an otherwise realistic mode of representation typical of the modern novel. This style has exerted a decisive influence on authors around the world, including Mo Yan, whose 1986 novel *Red Sorghum* resembles classic magical realist novels in its juxtaposition of literary realism with folklore namely, that of China.

Which quotation from a literary scholar would most directly support the claim in the underlined portion of the text?

- A) "Like many works in the Latin American magical realist tradition, *Red Sorghum* is indebted to antirealistic elements in the folkloric tradition of China."
- B) "The logic of the realistic plot of *Red Sorghum* is repeatedly and productively disrupted by the presence of imagery and situations drawn from Chinese folklore."
- C) "While *Red Sorghum* alternates between realistic and antirealistic modes of representation, details suggesting the influence of Chinese folklore nevertheless occur throughout the novel."
- D) "Although Chinese folklore clearly informs the style and occasionally antirealistic plot of *Red Sorghum*, the novel also shows the inarguable influence of the magical realist tradition of Latin America."

14

Indigenous songs are an important resource for ecological information. Songs of the Warlpiri people in Yuendumu, Australia, convey information about wild edible seeds, and the songs of the Kaluli people in Papua New Guinea replicate rainforest sounds to evoke specific locations. There have been efforts made to preserve Indigenous languages over the years --- e.g., the United Nations International Decade of Indigenous Languages (2022-2032). However, such attempts have typically focused on spoken language despite the fact that some expressions in these languages appear only in songs. Therefore, if those involved in such efforts want to ensure that a comprehensive range of information is secured, they must _____

Which choice most logically completes the text?

- A) recognize that Indigenous languages likely have more unique expressions that represent ecological knowledge than represent other types of information.
- B) incorporate the preservation of songs into their broader efforts to protect Indigenous languages.
- C) analyze musical similarities in the songs of the Warlpiri and Kaluli people.
- D) acknowledge that Indigenous songs are largely but not entirely composed using phrases taken from spoken language.

15

In a 2012 study that took place in Brazil, Enelton Fagnani, José Roberto Guimara, and Pedro Sérgio Fadini found a negative association between levels of dissolved organic carbon and mercury in bodies of fresh water. It may seem reasonable to be skeptical of this finding, since most other studies, such as research conducted in 2016 in the United States by Ramsa Chaves-Ulloa and colleagues, have found that dissolved organic carbon and mercury levels rise together. Like the latter study, however, most studies of the topic have been conducted in North America, and many of those study sites have similar characteristics to one another, suggesting that _____

Which choice most logically completes the text?

- A) few of the studies conducted in North America have been able to measure dissolved organic carbon and mercury levels with the same level of precision as in Fagnani, Guimara, and Fadini's study.
- B) Fagnani, Guimarà, and Fadini's study may have inadvertently measured a different characteristic of bodies of fresh water than their levels of dissolved organic carbon and mercury.
- C) the mercury levels reported in Fagnani, Guimarã, and Fadini's study were much higher than those reported in the study by Chaves-Ulloa and colleagues even though the dissolved organic carbon levels reported in the two studies were approximately the same.
- D) Fagnani, Guimara, and Fadini's finding may differ from the findings of other studies due to a difference in environmental circumstances that affects the relationship between dissolved organic carbon and mercury in fresh water.

16

As complex life cycle parasites, *Gonocerca* sp. and *Clavinema mariae* require multiple host species throughout their development. Extrapolating from parasite counts on surf smelt and seven other fish species collected from Puget Sound from 1880 to 2019, Chelsea Wood et al. found that the abundance of three host parasites, such as *Gonocerca* sp., negatively correlated with rising average annual sea temperatures; the abundance of two-host parasites, such as *C. mariae*, was largely stable. Noting that fish and other marine vertebrates are especially vulnerable to climate change, Wood et al. observed that all three host parasites in the study depend on at least two vertebrate species, while all two host parasites depend on only one, suggesting that _____

Which choice most logically completes the text?

- A) population size and density of the eight fish species examined in the study were likely largely unaffected by rising sea temperatures.
- B) although *Gonocerca* sp. and *C. mariae* both require surf smelt as a host, *C. mariae* was more adversely affected by warming-driven changes in the surf smelt population than *Gonocerca* sp. was.
- C) warming-induced population changes among Puget Sound vertebrates may have suppressed some parasite populations, but there were no changes among the eight studied host species that affected two host parasite abundance.
- D) a parasite's sensitivity to warming temperatures is negatively correlated with the number of unique vertebrate species it depends on throughout its lifecycle.

17

Entomologists Yash Sondhi and Samuel Fabian have tried to explain why moths fly erratically around light sources at night. Knowing that flying insects keep their backs pointed toward sunlight during the day, _____

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) moths continually try to reorient their bodies while flying near nighttime lights, the researchers theorize, mistaking such lights for the Sun.
- B) moths mistake nighttime lights for the Sun and continually try to reorient their bodies while flying near such lights, the researchers theorize.
- C) the researchers theorize that moths, mistaking nighttime lights for the Sun, continually try to reorient their bodies while flying near such lights.
- D) the researchers' theory is that moths mistake nighttime lights for the Sun, continually trying to reorient their bodies while flying near such lights.

18

In Antarctica, the Dome C East observatory site monitors activity in the upper atmosphere of the southern _____ in Canada, another observatory site, Rankin Inlet, monitors the sky of the northern hemisphere. Together, they are part of the Super Dual Auroral Radar Network --- or SuperDARN, as space physicists like Mark Lester call it.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) hemisphere
- B) hemisphere and
- C) hemisphere,
- D) hemisphere;

19

Butterfly is a 1988 painting by the Japanese artist Ay-O. Like many of Ay-O's paintings, Butterfly, which portrays a swimmer performing the butterfly stroke, attempts to make use of the entire visual light _____ sporting rainbow-striped goggles, the rainbow-hued swimmer splashes through a wavy rainbow of water.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) spectrum:
- B) spectrum, while
- C) spectrum while
- D) spectrum

20

The 20th century saw the founding of many Latino advocacy _____ to protect and advance the rights of Latino Americans, both the Mexican American Political Association (1960) and the Partido Nacional de La Raza Unida (1970) contributed to the history of US civil rights.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) groups and established
- B) groups, established
- C) groups established
- D) groups.Established

21

Estonia, Spain, and the other member nations of the North Atlantic Treaty Organization, or NATO, share a commitment to the principle of collective defense, each NATO member _____ to defend the others if necessary.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) has pledged
- B) pledges
- C) pledging
- D) is pledging

22

The Organization for Economic Co-operation and Development (OECD) tracks comparative price list data for its thirty-eight member countries. For instance, in July 2021, a hypothetical basket of goods priced at 100 US dollars (USD) in the United States would have cost 73 USD and 117 USD in fellow OECD _____ and Norway, respectively.

Which choice completes the text so that it conforms to the conventions of Standard English?

- A) nations; Estonia
- B) nations: Estonia
- C) nations Estonia
- D) nations, Estonia

23

Modernista architects championed nature in their designs. _____ the domed entryway and ornate floral ironwork of Umbracle, a Modernista pavilion designed by Josep Fontserè i Mestre, couldn't exactly grow in a forest. Still, one sees natural influences in Fontserè i Mestre's penchant for curves (rather than right angles) and plant-and animal-inspired flourishes.

Which choice completes the text with the most logical transition?

- A) Similarly,
- B) Furthermore,
- C) Thus,
- D) Granted,

24

In a 1984 study by Warren et al., the researchers determined the ratio of three different plant subtypes within the diet of sheep: graminoids, forbs, and browse. _____ the researchers determined the relative quantities of the plants the animal consumed.

Which choice completes the text with the most logical transition?

- A) Next,
- B) That is,
- C) In addition,
- D) By contrast,

25

While researching a topic, a student has taken the following notes:

- Artist Victor Vasarely of Hungary won a Carnegie Prize gold medal in 1967.
- The Carnegie Prize is an international art competition.
- It is administered by the Carnegie Museum of Art in Pittsburgh, Pennsylvania.
- Vasarely's winning artwork was a sculpture entitled *Alom*.

The student wants to identify the sculpture for which Vasarely won a Carnegie Prize gold medal. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) In 1967, an artist from Hungary won a Carnegie Prize gold medal for a sculpture.
- B) Vasarely won a Carnegie Prize gold medal for the sculpture *Alom*.
- C) The Carnegie Museum of Art awarded Vasarely a gold medal in 1967.
- D) The Carnegie Prize is an international art competition administered by the Carnegie Museum of Art in Pittsburgh, Pennsylvania.

26

While researching a topic, a student has taken the following notes:

- Onomatopoeias are words that imitate the sounds they represent.
- Onomatopoeias used to represent the same sound often vary from language to language.
- This variation is due in part to differences in how languages are structured.
- "Du-dunk" is a Swedish onomatopoeia that represents the sound of a heartbeat.
- "Dag dig-dug" is an Indonesian onomatopoeia that represents the sound of a heartbeat.
- The term "onomatopoeia" combines the Greek words for "name" (*onoma*) and "to make" (*poiein*).

The student wants to provide a specific example of onomatopoeia. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A) The term "onomatopoeia," which refers to words that imitate the sound they represent, combines the Greek words for "name" and "to make."
- B) The languages of Swedish and Indonesian use different words to represent the sound of a heartbeat.
- C) Differences in how languages are structured can cause variations in the words used in different languages to represent the same sound.
- D) The Indonesian word "dag-dig dug" both imitates and represents the sound of a heartbeat.

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- Vexillology is the study of flags.
- The flags of many countries include symbols like animals, plants, or landforms.
- These symbols often represent an aspect of the region's history, culture, or landscape.
- The flag of San Marino includes a laurel branch.
- The flag of Croatia includes leopards.

Which choice most effectively uses information from the given sentences to make and support a generalization about symbols on flags?

- A) Vexillology is the study of flags; accordingly, vexillologists are interested in flags from around the world.
- B) San Marino's flag includes a laurel branch, a symbol that is important to that country's national identity.
- C) The flags of some countries include symbols of plants; San Marino's, for example, includes a laurel branch.
- D) Many countries feature symbols on their flags, and the study of these designs is known as vexillology.

Reading and Writing Module 1 Answers

33 QUESTIONS

1. A
2. B
3. B
4. D
5. A
6. D
7. B
8. C
9. D
10. A
11. D
12. C
13. B
14. B
15. A
16. B
17. D
18. B
19. B
20. C
21. B
22. D
23. A
24. D
25. B
26. C
27. B

Reading and Writing Module 2 Answers

33 QUESTIONS

1. C
2. B
3. A
4. C
5. D
6. C
7. C
8. B
9. C
10. D
11. D
12. C
13. D
14. B
15. D
16. B
17. C
18. D
19. A
20. D
21. C
22. C
23. D
24. B
25. B
26. D
27. D