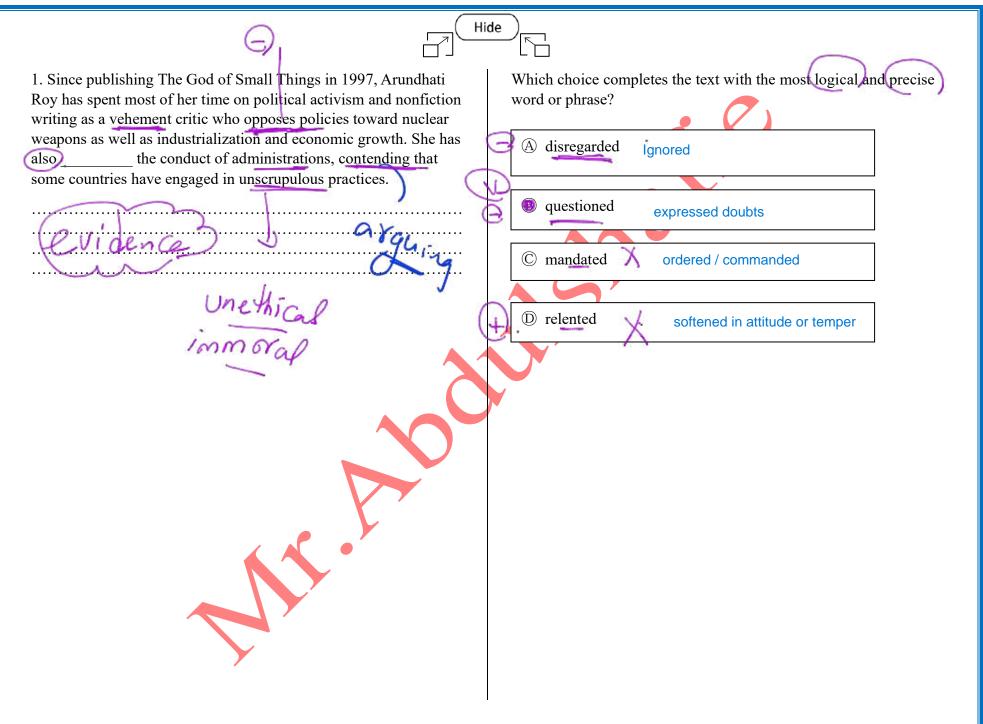
TEST 18

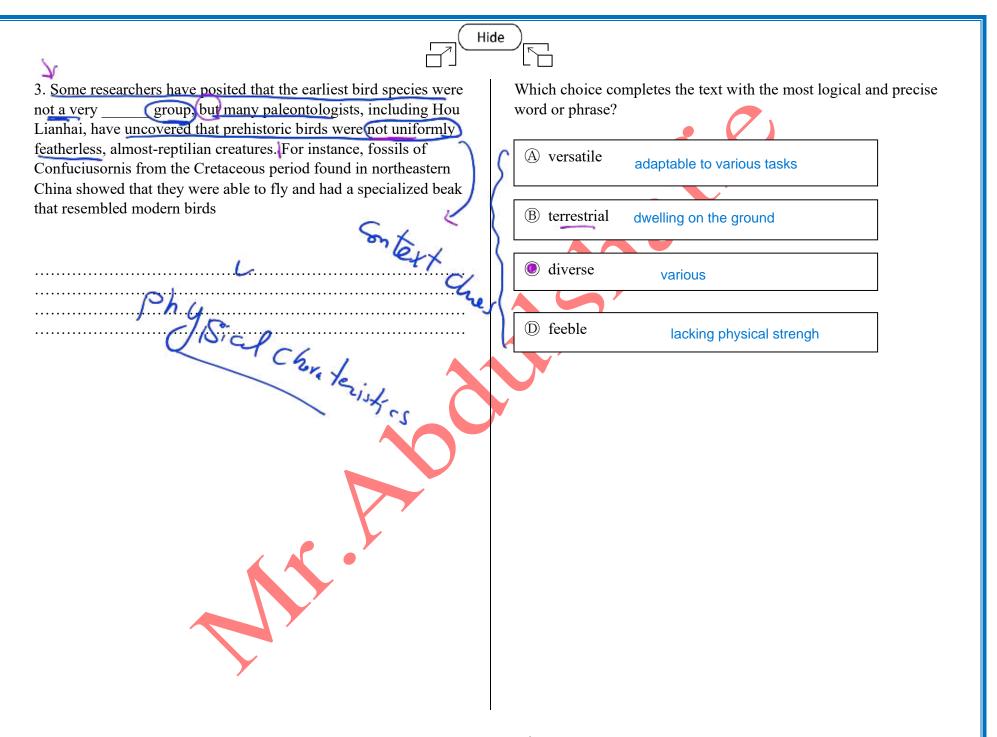
MODULE 1

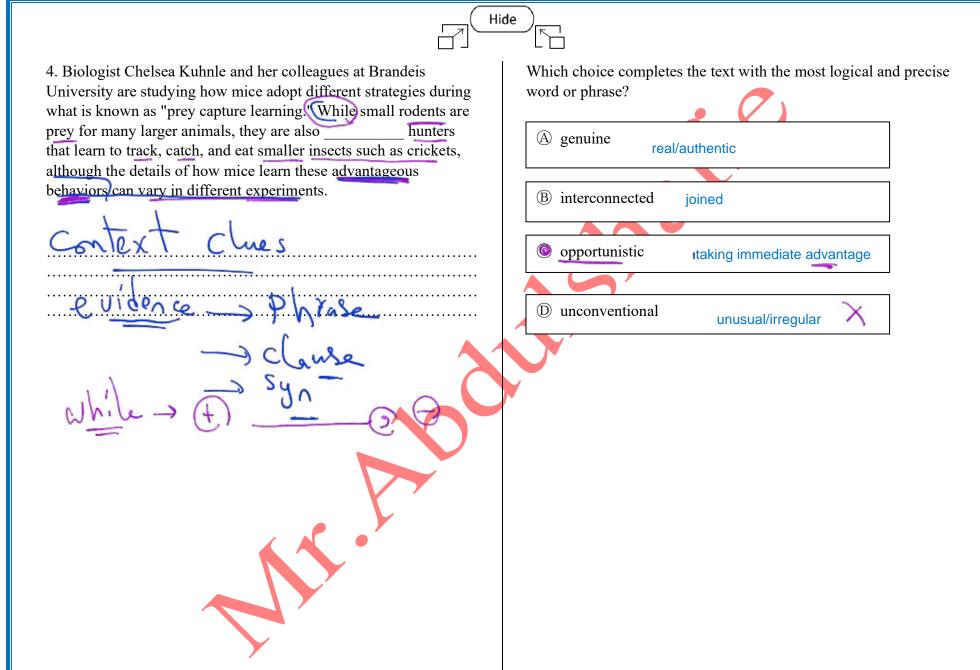






H	ide
- 2. While NASA went ahead with planning for the Apollo program,	Which choice completes the text with the most logical and precise
which was conceived by NASA early in 1960 during the	word or phrase?
Eisenhower administration to be used as a shuttle to an Earth-	
orbital space station, funding for the program was far from certain. President Eisenhower's attitude toward manned	A unflinching determined \ γοςο \ ω το
spaceflight hampered progress in actualizing the endeavor.	
prevented/	B level-headed calm/sensible
	© simplistic oversimplified
	ambivalent having mixed feelings





Hi	de
5. When expressing emotions, most people have a dominant left facial expression, reflecting the right hemisphere dominance in expressing emotions. Interestingly, a pattern is seen in animals, where the level of emotional expression is proportional to the extent of brain hemisphere dominance.	Which choice completes the text with the most logical and precise word or phrase? (A) calibrated determined
	© corporate formed into a unified body o commensurate equal in messure
	or extert.

0

6. The following text is adapted from E. M. Forster's 1908 novel A Room with a View. According to his taste, Mr. Flack built two villas on Summer Street in a small town, the appearance of which the whole town found unpleasant.

Sir Harry sighed, and looked at the two villas mournfully. He had had full warning of Mr. Flack's intentions, and might have bought the land on which they are built before construction commenced: but he was apathetic and reluctant. He had known Summer Street for so many years that he could not imagine it being spoilt. Not till Mr. Flack had laid the foundation stone, and the apparition of red and cream brick began to rise did he take alarm. He called on Mr. Flack, the local builder and a most respectful man, who agreed that tiles would have made a more artistic roof, but pointed out that slates were cheaper.

Sadh

Hide



Who ?

Which choice best states the main purpose of the text?

- (A) To explain a resolution of a conflict between Sir Harry and Mr. Flack
- B To depict a change in Sir Harry's view of Mr. Flack
- On To indicate Sir Harry's oversight in preserving the beauty of Summer Street
- ① To compare the personalities of Sir Harry and Mr. Flack

Hide 7. The following text is from Henry James' 1881 novel The Portrait of a Lady. After Isabel realizes that she has been tricked into a marriage, she goes to the countryside around Rome. [Isabel] had long before this taken old Rome into her confidence, for in a world of ruins the ruin of her happiness seemed a less unnatural catastrophe. She rested her weariness upon things that had crumbled for centuries and yet still were upright; she dropped her secret sadness into the silence of lonely places. Small it was, in the large Roman record, and her haunting sense of the continuity of the human lot easily carried her from the less to the greater.

Which choice best states the main purpose of the text?

- To indicate Isabel's reliance on the old ruins to ease her personal troubles
- B To underscore Isabel's desire to learn more about the history of Rome
- © To reveal Isabel's sense of nostalgia for a previous phase in her life
- ① To portray Isabel's pessimistic outlook regarding the purpose of her trip

2

Hide

8. The following text is adapted from Stephen Duck's 1736 poem "Contentment." In the poem, the poet reflects on his personal ideals.

Farewell aspiring thoughts, no more

My soul shall leave the peaceful shore,

To sail ambition's main, fallacious as the promise unfound You promise me uncertain bliss, let others to preferment soar

And, changing liberty for power, in golden shackles live

Tis time, at length, I should be wise, time to seek substantial joys Come, conscious virtue, fill my breast, a bulwark fortune cannot shake

Process of elimination adv.

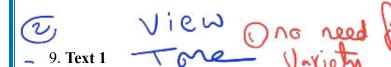
What is the main idea of the text?

A The speaker gains a greater sense of contentment by seeking solitude

B The speaker rejects an urge in favor of another means of fulfillment.

© The speaker's attempt to gain fortune is inhibited by a lack of opportunities.

① The speaker develops a sense of urgency after acknowledging the advice of others.



As the field of machine learning has evolved and diversified, resulting in a myriad of neural network types (AI systems that emulate the operational mechanisms of the human brain), some experts have begun to question the necessity for this extent of diversity. They claim that since they all perform similar tasks, only a few selected top designs should prevail and the focus should shift towards their refinement, thereby optimizing computational efficiency and eliminating the need for an excessive variety of neural networks.

Text 2

Machine learning expert Dr. Emily Anderson and her colleagues ascribe the diversity of neural network to their task-oriented nature. Due to its unique design, each network excels at processing certain types of data and tasks and often become less effective when applied outside its intended domain. This naturally results in a form of "specialization," where each neural network becomes proficient at specific operations, ensuring that each neural network type serves a distinct purpose.

Hide

Based on the texts, how would Anderson and colleagues (Text 2) most likely respond to the claim in Text 1?

- A By recommending the integration of some of the common neural networks by their functions, in order to increase their function
- By suggesting that it is highly unlikely because of the inherent specialization within neural networks
- © By claiming that as neural networks learn more tasks in their function, they will eventually make other networks obsolete
- D By providing additional examples of different neural networks with the same functions competing with each other

10. The following text is adapted from Robert Chamber's 1895 novel The King in Yellow.

I glanced in at the doorway and saw Hawberk busy in his little shop at the end of the hall. He looked up, and catching sight of me cried in his deep, hearty voice, "Come in, Mr. Castaigne!" Constance, his daughter, rose to meet me as I crossed the threshold, and held out her pretty hand, but I saw the blush of disappointment on her cheeks, and knew that it was another Castaigne she had expected, my cousin Louis. I smiled at her confusion and complimented her on the banner she was embroidering from a colored plate.

P3/14 V

According to the text, what is true about the narrator?

- A He maintains his courtesy despite Constance's disappointment.
- B He fails to perceive the presence of another Castagagine in Hawberk's shop.
- © He wishes to have brought his cousin Louis to Hawberk's shop.
- ① He impresses Hawberk and his daughter with his compliments.

11. The following text is from Thomas Hardy's 1891 novel Tess of the d'Urbervilles. The author compares the family of Durbeyfield to a ship.

All these young souls were passengers in the Durbeyfield ship—entirely dependent on the judgment of the two Durbeyfield adults for their pleasures, their necessities, their health, even their existence. If the heads of the Durbeyfield household chose to sail into difficulty, disaster, starvation, disease, degradation, death, thither were these half-dozen little captives under hatches compelled to sail with them—six helpless creatures, who had never been asked if they wished for life on any terms, much less if they wished for it on such hard conditions as were involved in being of the shiftless house of Durbeyfield.

According to the text, what is true about children of Durbeyfield family?

They are under control of their parents in every aspect of their lives.

B They are currently sailing with their parents to a new destination.

© They are strangely uninhibited for children their age.

① They are more than adequately cared for under the supervision of their parents.

Survey on Agreement Supporting the Use of Nuclear Power or Fossil
Fuels as a Main Source of Energy in India, Germany and the US
(% of total polled)

Year	Support for Nuclear Power in India	Support for Fossil Fuels in India	Support for Nuclear Power in Germany	Support for Fossil Fuels in Germany	Support for Nuclear Power in the US	Support for Fossil Fuels in the US
2005	33	51	23	77	40	42
2015	35	55	15	80	45	46
2022	36	56	7	76	50	48

Although public support for nuclear power as an energy source has varied across different countries over different time periods in recent decades, some surveys, such as those conducted in the United States, have shown increasing public support for the use of nuclear power At the same time, survey results from other countries also show growing support for alternative sources, including but not limited to fossil fuels. This can be seen by

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•	 •	• •	•	•	•	•	•	 •	٠	•	•	 ٠	•	 •	٠	•	•	•	٠	•	•	•	•	•	•	 •	•	•	•	•	•	•	•	•	• •	•	•	•	•		W	• •	•	•	•	•	•	•	•	•	•	•		•

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

- (A) data from a 2022 survey in India which shows higher support for fossil fuels than what was observed in the US in 2005.
- B data from survey results in Germany which shows a decrease in support for nuclear power between 2005 and 2022.
- data from survey results in the US and in India from 2005 through 2022 for support for fossil fuels.
- ① data from a survey in Germany indicating 7% support for nuclear power in 2022 and data from the US indicating 48% support for fossil fuels in 2022.

Average Calories Used During Foraging, Daily Energy Requirements, and Body Mass for Five Animal Species

Species	Calories Used During Foraging (kilocalories per hour)	Daily Energy Required (kilocalories per day)	Body Mass (grams)
Mellisuga helenae	0.18	5.6	5.3
Smicrornis brevirostris	0.08	2.4	6
Selasphorus calliope	0.24	6.2	4.5
Auriparus flaviceps	0.21	7.5	7
Psaltriparus minimus	0.16	5.2	6

Researchers from North America, Africa, and South America collaborated on a groundbreaking study to explore the complexities of energy expenditure during food gathering activities in different animal species. The study sought to measure the energy expenditure from these activities in species of similar body mass (in kilocalories per hour) and the net energy these creatures needed for their daily survival (in kilocalories per day). Based on their research, the team concluded that different species with similar body mass expend different amounts of energy in their foraging activities, depending on their daily energy requirements.

- Which choice best describes data from the table that support the researchers' conclusion?
- Across five species studied, higher body mass requires higher amount of energy required for species.
- ® Although A. flaviceps has the highest body mass from the five species studied, it does not have the highest foraging rate.
- © The foraging rate of S. brevirostris is significantly less than M. helenae despite having higher body mass.
- S. brevirostris and P. minimus have different energy requirement and foraging rate even though they have the same body mass.

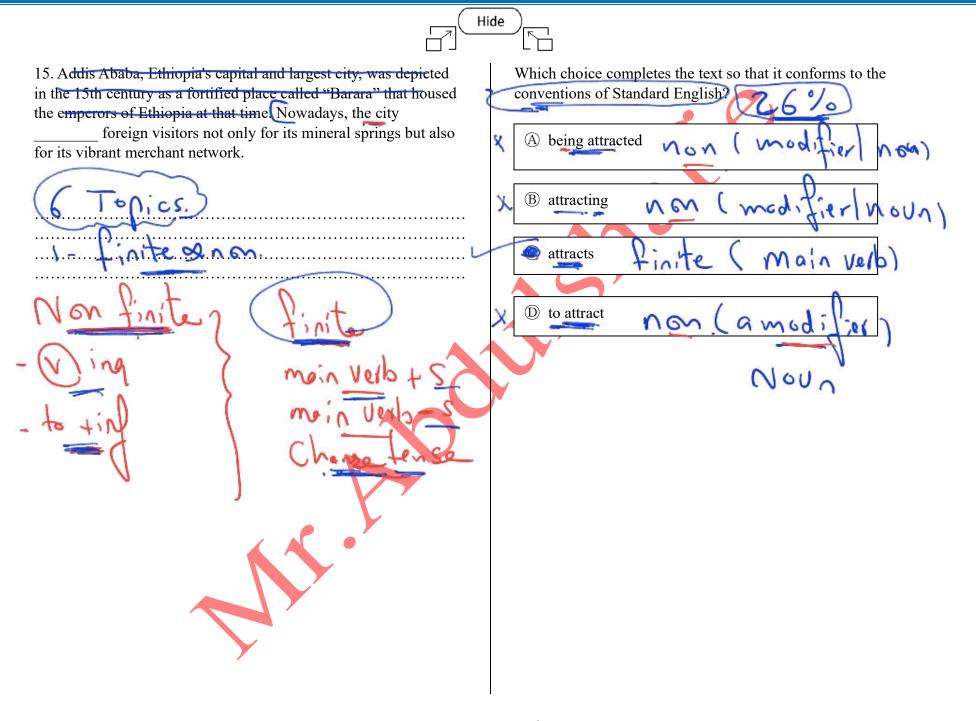
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14. In scientific writing, direct quotations are often employed to effectively provide historical context for specific constructs or theories. The Psychology Writing Center at the University of Washington argues that while direct quotation of the words of experts in the field can reinforce a writer's arguments or assertions, the utilization of direct quotation must be approached with care; excessive use of direct quotations can overshadow their unique voice and original insights, and limit capacity for logical analysis and evaluation of information, which may	H (
heke,	

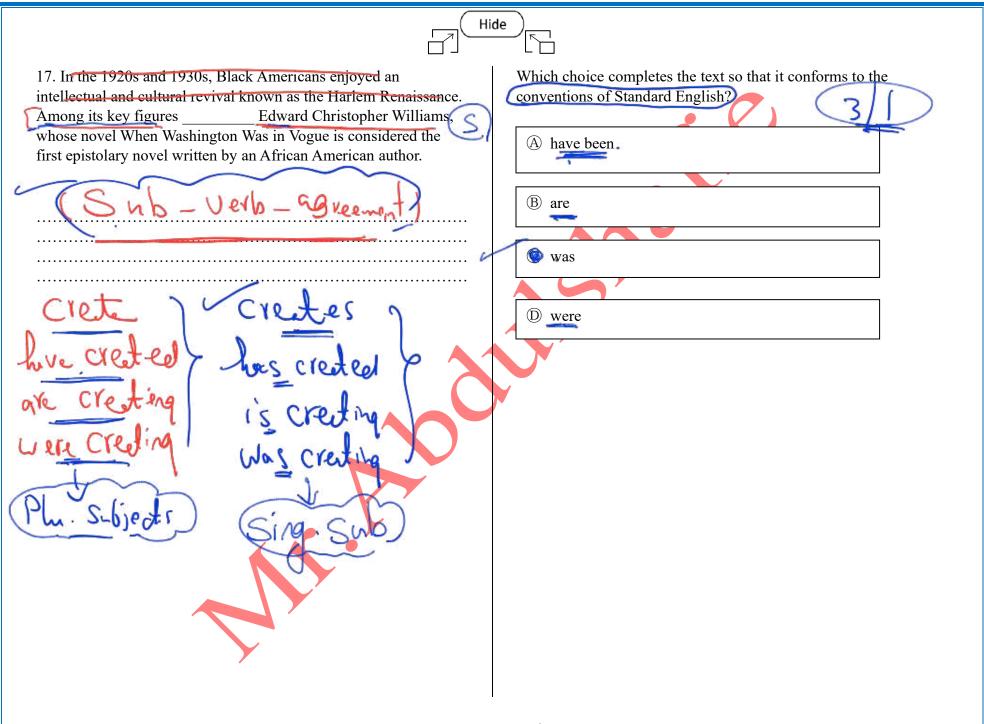
inference

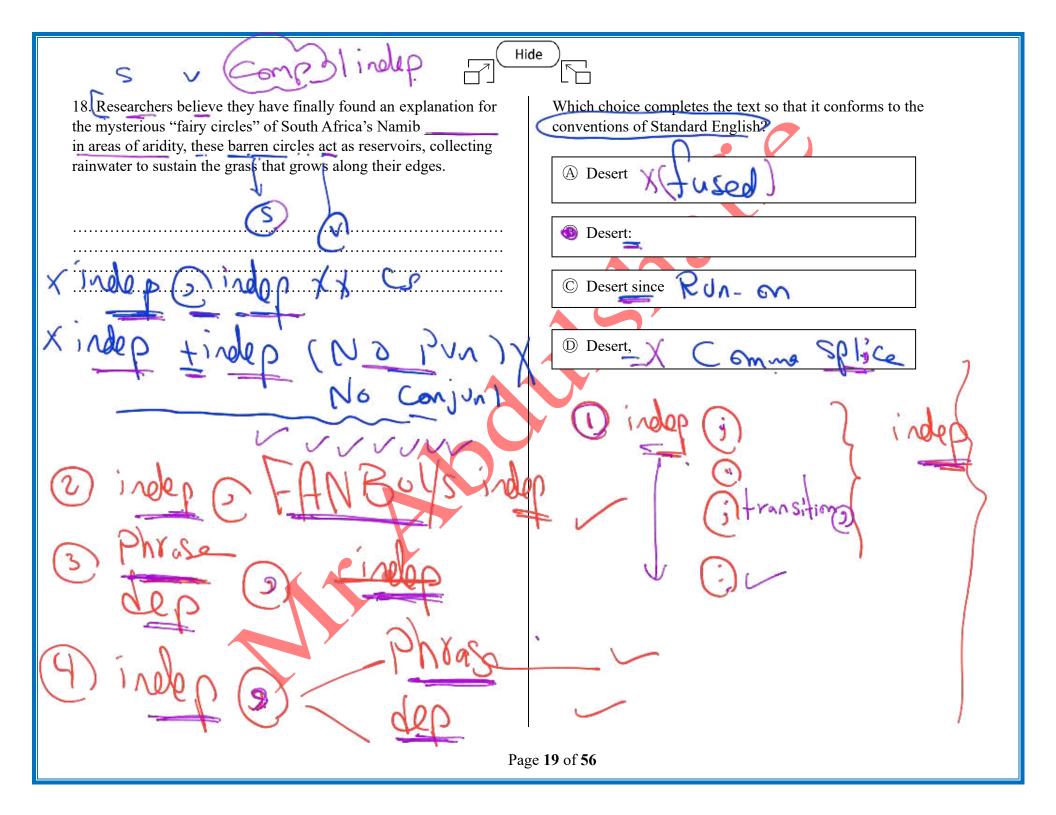
Prevent

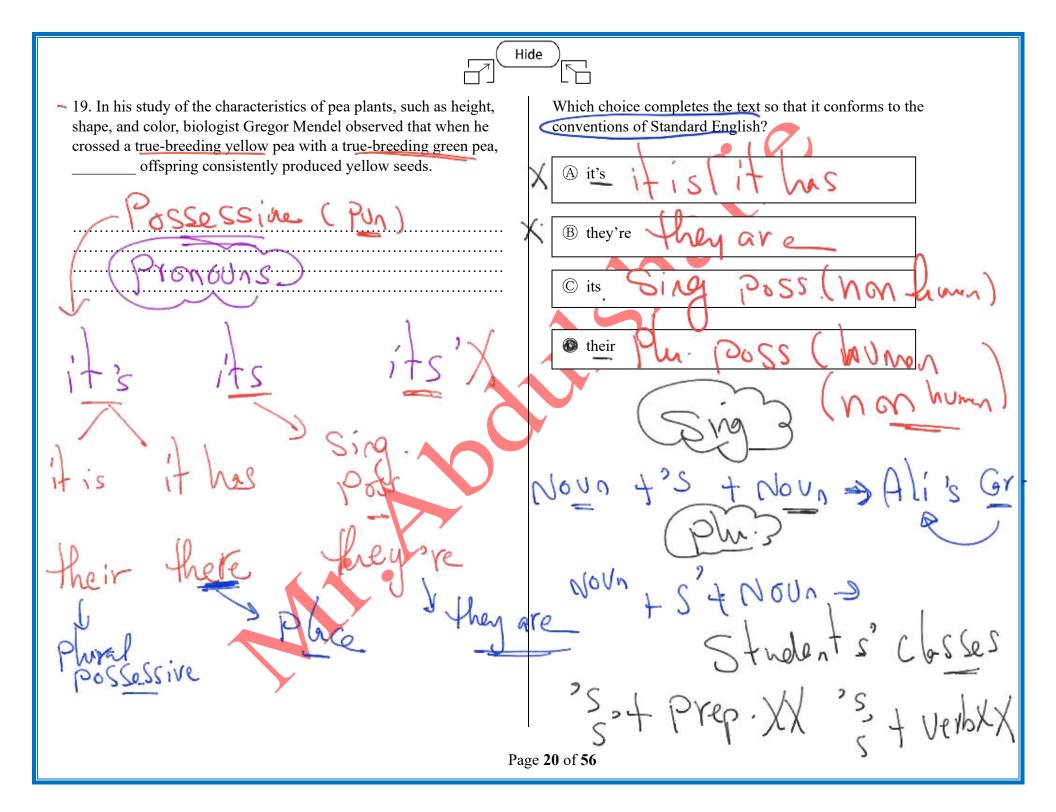
Which choice most logically completes the text?

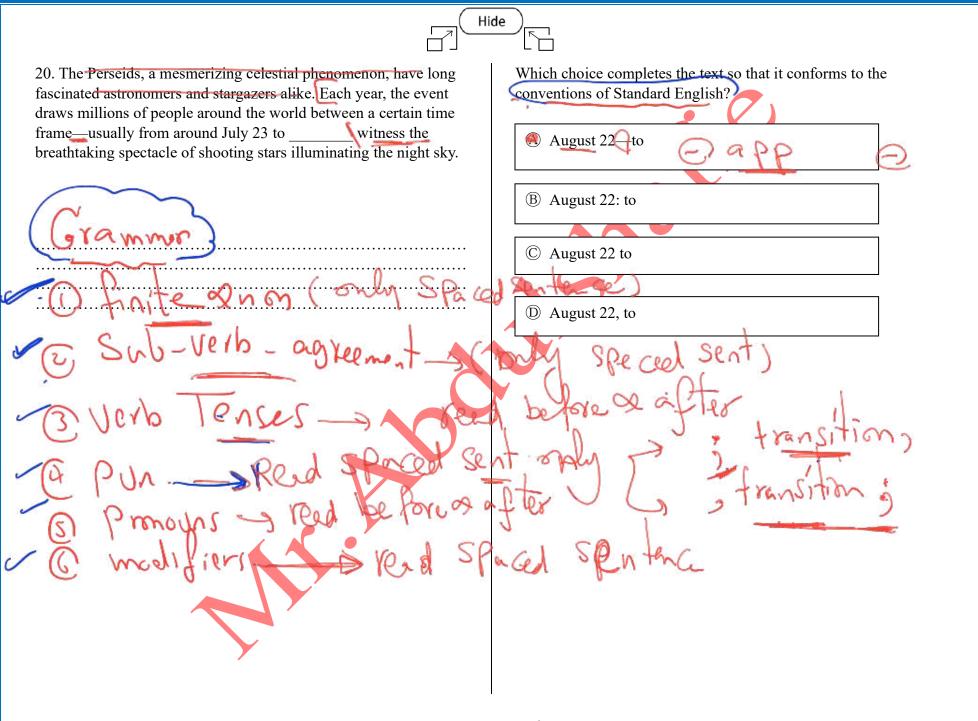
- (a) dilute the author's unique perspectives and impede clear presentation of their interpretation.
- ® overshadow the significance of the author's research findings and hypotheses.
- © impede the flow of the text and disrupt the logical structure of the paper.
- ① undermine the writer's credibility and increase the risk of plagiarism.

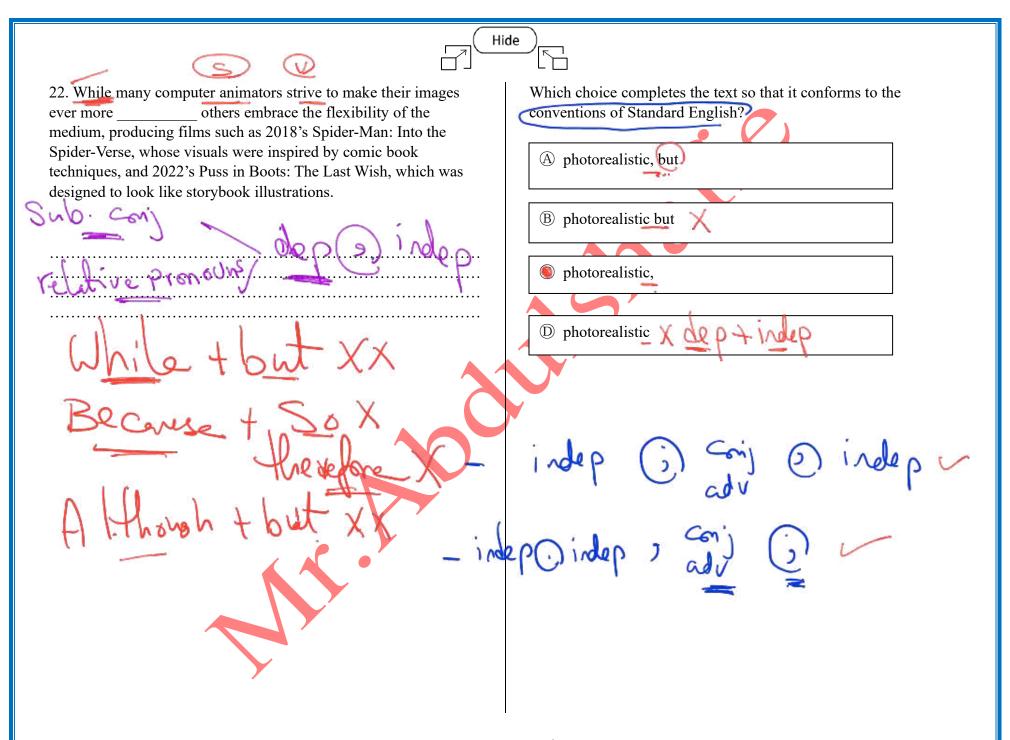










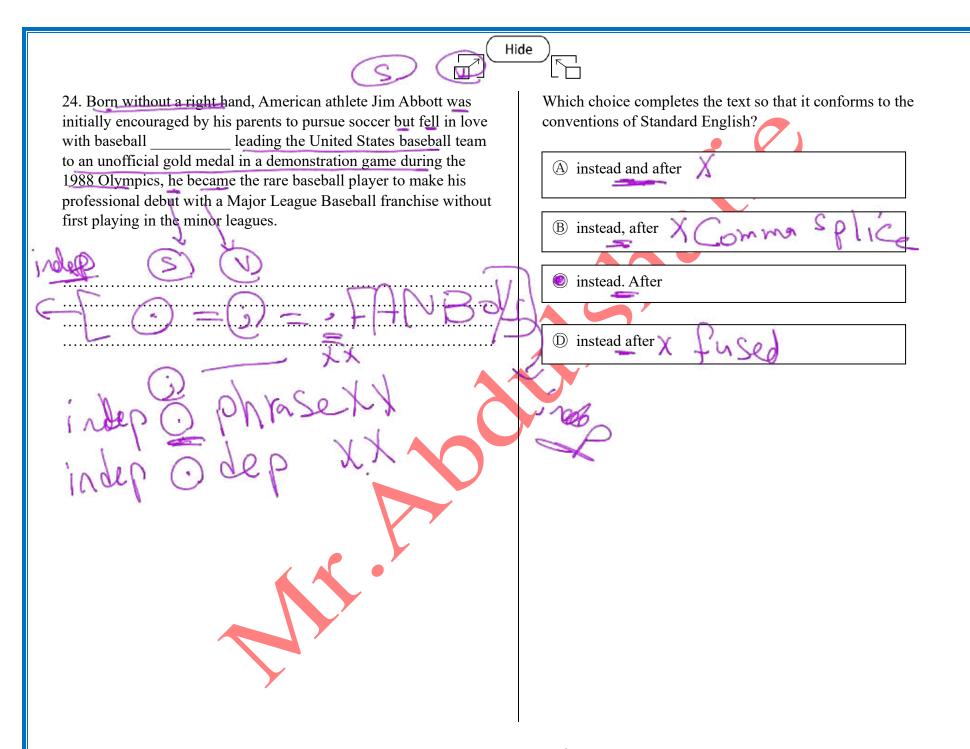


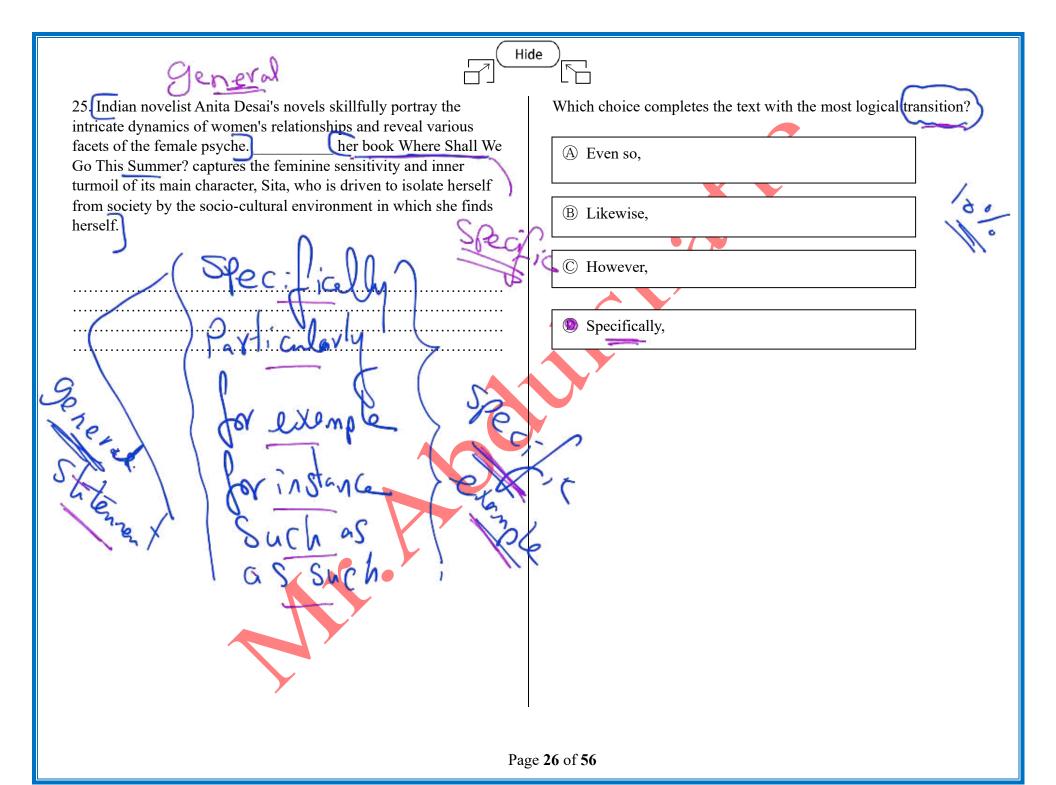
23. Margot Lee Shetterly's book Hidden Figures, which tells the _____ who worked at NASA but went unrecognized for their invaluable achievements and contributions during the Space Race, reached number one on the New York Times bestseller list, won the Anisfield-Wolf Book Award for Nonfiction, and was adapted into an Oscar-nominated film.

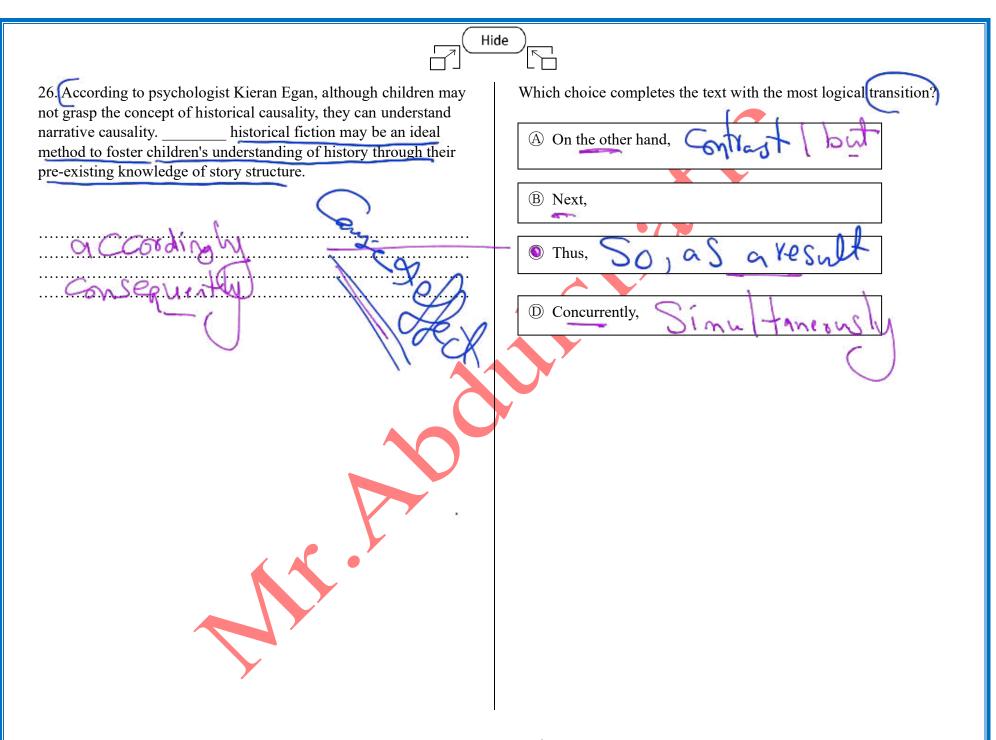
(3, 4 bisb) /

3. + (Noun) (x) 3. + (Noun) (x) 3. + calitalounu Which choice completes the text so that it conforms to the conventions of Standard English?

- A stories' of the Black female mathematicians'
- ® story's of the Black female mathematician's
- © story's of the Black female mathematicians
- stories of the Black female mathematicians







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

- Gabriel García Márquez won the Nobel Prize in Literature in 1982.
- Márquez was born in Aracataca, Colombia, and was affectionately known as Gabo or Gabito.
- His novel One Hundred Years of Solitude is considered a masterpiece of magical realism.
- One Hundred Years of Solitude was published in 1967 and tells the story of the Buendía family over seven generations in the fictional town of Macondo.

The student wants to introduce One Hundred Years of Solitude to an audience unfamiliar with the novel and its author. Which choice most effectively uses relevant information from the notes to accomplish this goal?

© Considered a masterpiece of magic realism, One Hundred Years of Solitude (1967) tells the story of the Buendía family and was written by Colombian author Gabriel García Márquez, who won the 1982 Nobel Prize in Literature.

- ® Gabriel García Márquez's novel One Hundred Years of Solitude, which is about the story of the Buendía family over seven generations, is considered a masterpiece of magical realism.
- © Gabriel García Márquez, who won the Nobel Prize in Literature in 1982 for his novel One Hundred Years of Solitude, was born in Aracataca, Colombia, and was affectionately known as Gabo or Gabito.
- ① One Hundred Years of Solitude, which is considered a masterpiece of magical realism, is a novel published in 1967 by Gabriel García Márquez.

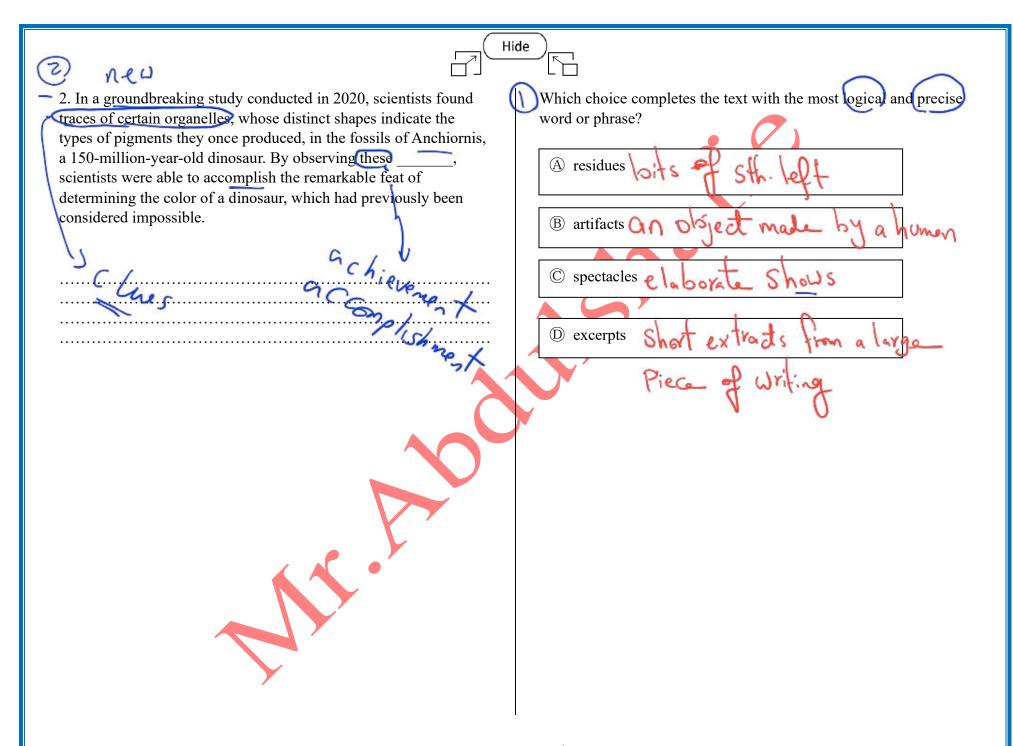
TEST 18

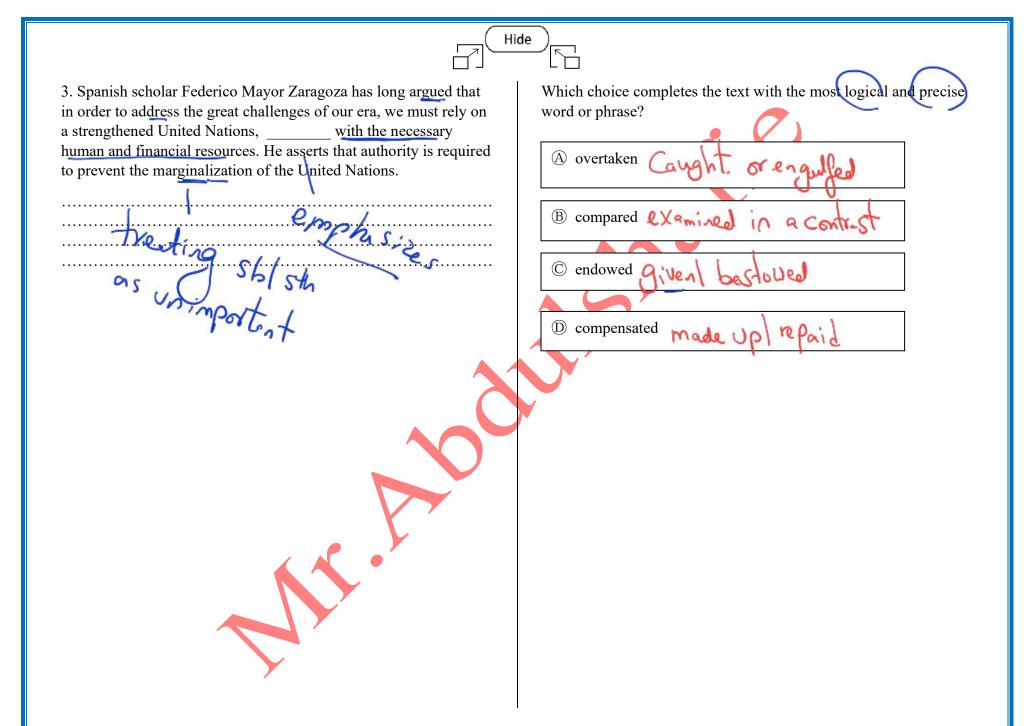
MODULE 2



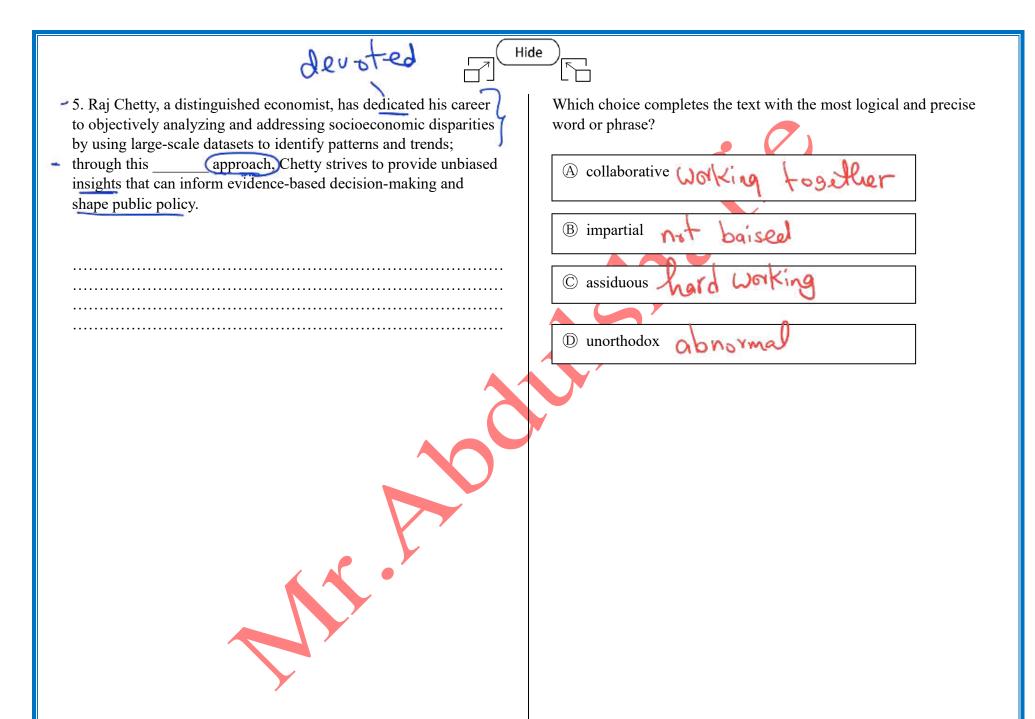


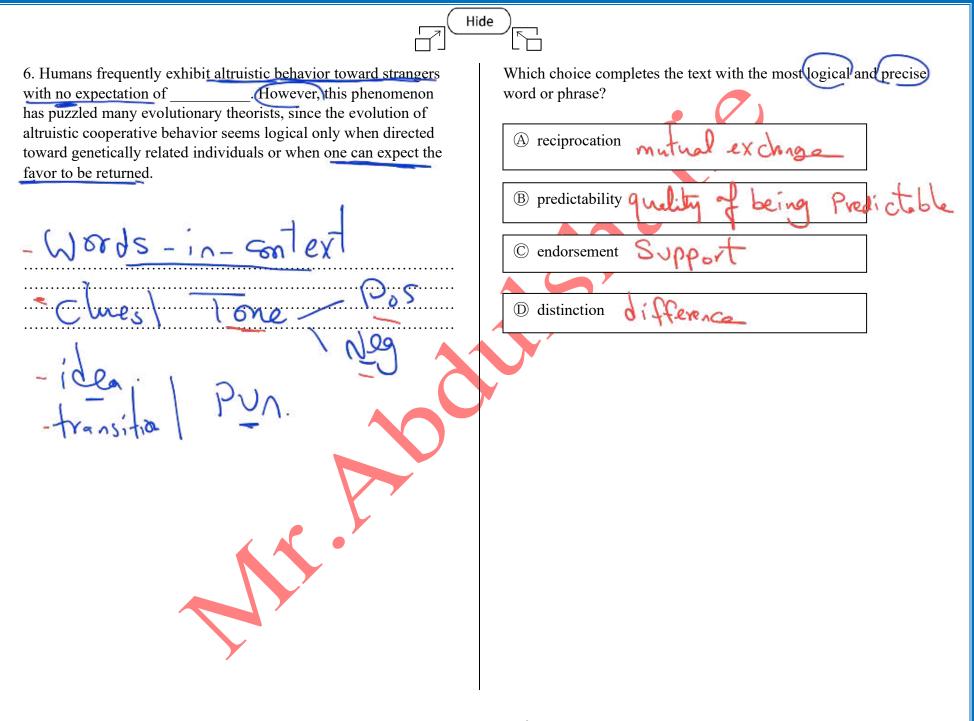
words-in-context	Hide
1. Recognized as a highly respected traveler of the medieval world,	Which choice completes the text with the most logical and precise
Ibn Battuta once embarked on one of the most journeys	word or phrase?
in history, spanning 30 years and covering over 75,000 miles across the known world; his account, known as the Rihla, has been	
revered throughout history for its vivid descriptions, and insightful	A intermittent sporadi d'irregular l'not continuous
observations of the various places far away from his homeland.	
	B generous Showing readiness to give more
1 Probresion de	or other of realizess to dive more
Par-phresing & box	© incongruous not in harmony
Starte	© incongruous not in harmony
827	
1 + class sommerces	D extensive
context clues context	
Conlex	





Hic	de)
4. In the 1920s, the majority of geologists the proposal of J Harlen Bretz that a series of catastrophic floods shaped the Pacific Northwest, USA—such pushback was due to the prevailing belief at the time in gradualism, the slow changes of landscapes over time. In the mid-20th century (however, evidence confirmed the existence of these ancient floods beyond any opposition.	Which choice completes the text with the most logical and precise word or phrase? (A) forsook abandoned (B) delineated described bathined (C) contested argued disputed (D) recapitulated Summirzed





- 7. The following text is from Margaret Wolfe's 1895 novel The Professor's Experiment.
- When Dominick heard of Miss Barry's intention of giving a lavish party, he decided that at all risks it should be a success. But his quarter's allowance was, as usual, at death's door, and only thirty shillings remained of it. He at once wrote to his guardian to explain the circumstances over which he had no control. He meant to report his inability to refrain from buying everything his eye lit on had made away with the sum sent last June, and he would feel immensely obliged to if he could receive an advance on his next allowance.

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

- (A) It introduces preceding details to contrast the circumstances depicted in the next sentence.
- ® It describes a dilemma that is resolved by another character in the passage.
- © It presents a reason behind an action that is taken in the following sentence.
- ① It reveals a flaw of a character that explains his overall behavior in the text.

- 8. The following text is adapted from Marianne Farningham's 1892 novel Nineteen Hundred? A Forecast and a Story.
- Of the two men, though Dallington was the more handsome, Knight was by far the more attractive. Rather taller than the average Englishman, strong and graceful in figure, he was the personification of strength, but there was something about him which told also of great refinement. There was not a particle of self-assertion in him, and yet he was one who would never be overlooked. When he entered a room people naturally observed him, for he had the rare gift of magnetic influence, which seems to be possessed by only a few.

According to the text, what is true about Knight?

- A He is smaller in size but more handsome than Dallington.
- B He gives the impression of strength but lacks great refinement.
- © He exudes a distinctive charm and is also notable for various other qualities.
- ① He asserts himself to attract attention but without much success.

-9. Human land-use activity such as the development of hydropower, which uses the flow of water to generate electricity, modifies the structure and composition of native ecosystems. Biologist Ana Palmeirim, studying the impact of hydropower development on habitat loss for jaguars and tigers, observed that hydropower reservoirs in tropical lowlands frequently expand across riverbanks and floodplains, areas known to be vital habitats for both these animal species due to the abundant availability of prey. Consequently, Palmeirim advises that future hydropower initiatives should refrain from establishing operations in regions in lowlands, which are especially important for jaguars in the Amazon basin.

(Central Ideas & deles (s)

According to the text, what could be a potential benefit of stopping the development of hydropower projects in lowlands?

- A The resources needed for hydropower projects can be utilized more efficiently while enriching the habitats of jaguars and tigers.
- B Resources for jaguars and tigers can be maintained at a level that retains native features.
- © Jaguars in the Amazon basin can rely on regions other than topographically flat regions for their habitat.
- D Riverbanks and floodplains will be less vulnerable to natural hazards caused by the construction of hydropower reservoirs.

Steady

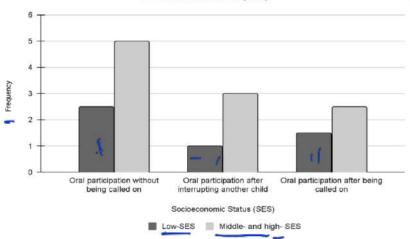
Which choice most effectively uses a quotation from Antony and Cleopatra to illustrate the claim?

- (A) says in front of her servant, "Who's born that day / When I forget to send to Antony / Shall die a beggar."
- B says to a messenger, "I'll set thee in a shower of gold and hail / Rich pearls upon thee."
- © says to a messenger, "Give to a gracious message / An host of tongues, but let ill tidings tell / Themselves when they be felt."
- ② says to her servant, "But 'tis no matter; thou shalt bring him to me / Where I will write."

Which quotation from Fathers and Sons most effectively illustrates the claim?

- (A) "By a single thread does the destiny of every man hang, and at any moment there may open before him an abyss into which he and his may plunge. For always he is laying up for himself misfortune."
- ® "Do you see that withered maple leaf fluttering to the ground? Are not its movements exactly like those of a butterfly? Strange that an object so joyous and full of life should be able so to counterfeit an object mournful and dead!"
- © "I wish to know for what you are preparing, and what future awaits you, and what is the goal which you are seeking to reach, and whither you are travelling, and what you have in your mind—in short, who and what you are."
- ① "She had become his wife, and had conferred upon him such happiness as falls to the lot of few men on earth; but ever the thought recurred to him, and recurred again: "Why could those days of sweetness not have lasted forever, so that we might have lived a life which should never have known death?"

12. Unsolicited and Solicited Oral Participation of Preschool Students Depending on Socioeconomic Status (SES)



Numerous studies have found a strong correlation between student engagement and academic success. Recognizing the disparities in student engagement based on socioeconomic status (SES), researchers Sébastien Goudeau and Camille Sanrey investigated the causes of these disparities in early schooling settings. They observed classroom interactions among preschoolers of comparable abilities across different schools, measuring both requested participation (when students participate after being invited to do so) and unsolicited participation (when students contribute without being asked or interrupt another child). Based on their observations, Goudeau and Sanrey concluded that differing SES does affect students' levels of participation in classrooms and that these early disparities are caused by various factors within classroom structures, including stereotypical assumptions from teachers and fellow students.

Y

command of evidence (quentitative)

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

- A cross all measurements, low SES-students showed the same frequency of participation in classroom as their middle-and high-SES counterparts.
- ® The difference in frequency of participation between lowand middle-SES students is greater than the difference in frequency of participation between middle- and high-SES students.
- © Across all measurements, low-SES students demonstrated a lower frequency of engagement in classroom discussions when compared to their middle- and high-SES counterparts.
- D Participation rates of low-SES students are more likely to be affected by stereotypical assumptions from teachers than that of middle- and high-SES students.

13. Comparison of Sales and Recalls Between Conventional and Organic Products

	Year	Total Food Product Sales (in Million Dollars)	Organic Food Product Sales (in Million Dollars)	% of Organic Food Product Sales	Total Food Product Recalls	Organic Food Product Recalls	% of Organic Food Product Recalls
	2010	677,354	22,961	3.4%	288	9	3.13%
	2011	713,985	25,148	3.5%	312	17	5.50%
	2012	740,450	27,965	3.8%	374	25	6.95%
	2013	760,486	31,378	4.1%	272	11	4.07%
1	2014	787,575	35,099	4.5%	291	34	11.68%
	2015	807,998	39,006	4.8%	355	30	8.47%
	2016	812,907	42,507	5.2%	486	33	6.79%
9	2017	822,160	45,209	5.5%	346	28	8.09%

Organic food has become increasingly popular, and its market share and consumer acceptance have grown rapidly. This trend stems from a perception that organic foods are more nutritious and safer compared to their conventional counterparts. However, Mesbahuddin Chowdhury, a specialist in food safety and microbiology, believes there is a lack of conclusive comparisons between the safety of organic and conventional foods. To address this, he took a closer look at the differences in food safety between these two types of food, using product recalls as an indicator of different levels of potential food safety risks. His research found that while organic foods tend to be safer than conventional foods, food safety risks for organic foods have also increased as organic food sales have risen.

- Which choice best describes data in the table that support Chowdhury's finding?
 - A The number of organic food product recalls was the highest in 2014, although the number of sales is not as high as in 2017.
 - ® Total food sales increased as organic food sales increased each year between 2010 and 2017.
 - © The percentage of organic food product recalls increased as the total organic food product sales increased between 2010 and 2017.
 - ① The percentage of recalls for organic food products decreased from 2015 to 2017, even though the number of organic food product sales increased.

finding.

Garch & findy = ansage

14. The Dutch coastal landscape is characterized by low-lying terrain, which makes it particularly susceptible to flooding, posing a significant challenge to settlement and agriculture. To tackle the problem of flooding, the Dutch developed a technique called

flooding, and then pumping the water out to reclaim the land. This

"poldering" and have been using it since the 17th century. This involves building dikes or earthen walls around a piece of land submerged in a lake, sea or marshland to hold back water and

Hide

allows the Dutch to

Which choice most logically completes the text?

- A elevate their land to higher ground where flooding is less of a threat.
- ® expand their land to build homes for residents and to farm.
- © mitigate the problem of potential droughts by conserving water.
- D maintain the biodiversity of the lake, sea or marshland.

orders

15. The Three-Strikes law, which mandates a life sentence for individuals convicted a third time, was initially intended to ease the burden on the criminal justice system by deterring habitual criminals from further infractions. However, over the years, this law has resulted in disproportionately severe sentences for those convicted of a third offense, even when this is a minor offense that ordinarily would have led to a fine or warning. Therefore the critics have claimed that the law may have inadvertently

intention

Hide

[] (inference)

Which choice most logically completes the text?

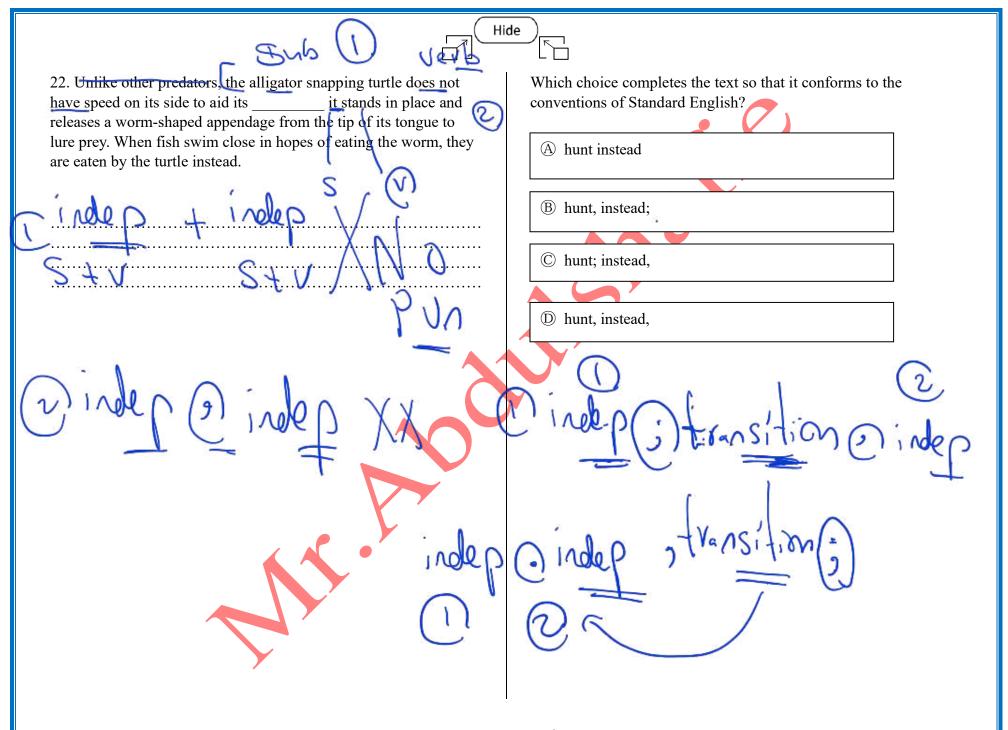
- (A) encouraged repeat offenders to continue committing minor offenses because the penalties are only a fine.
- ® omitted important steps in the legal process for repeat offenders in order to reduce the backlog of cases.
- © imposed disproportionately harsh sentences on repeat offenders regardless of their individual circumstances.
- ① increased the number of criminal proceedings and thus overwhelmed criminal justice system, rather than alleviating the strain on it.

Hide 16. In 1935, photographer Walker Evans landed a full-time Which choice completes the text so that it conforms to the conventions of Standard English? position as an "information specialist" with the Farm Security Administration, a New Deal agency within the Department of Agriculture. This came after he _____ as a photojournalist for (A) had worked the U.S. Department of the Interior on a temporary basis to photograph a government-built resettlement community for unemployed coal miners. ® works © will work (D) has worked

Hide 19. Although the Netflix series Stranger Things premiered in 2016, Which choice completes the text so that it conforms to the creators Matt and Ross Duffer took great pains to make the show conventions of Standard English? look as if it were from the 1980s, when the story takes place After shooting footage with modern digital cameras, the Duffer brothers (A) grain. An added a film effect captured by scanning vintage film stock. ® grain; an © grain, an D grain, and an

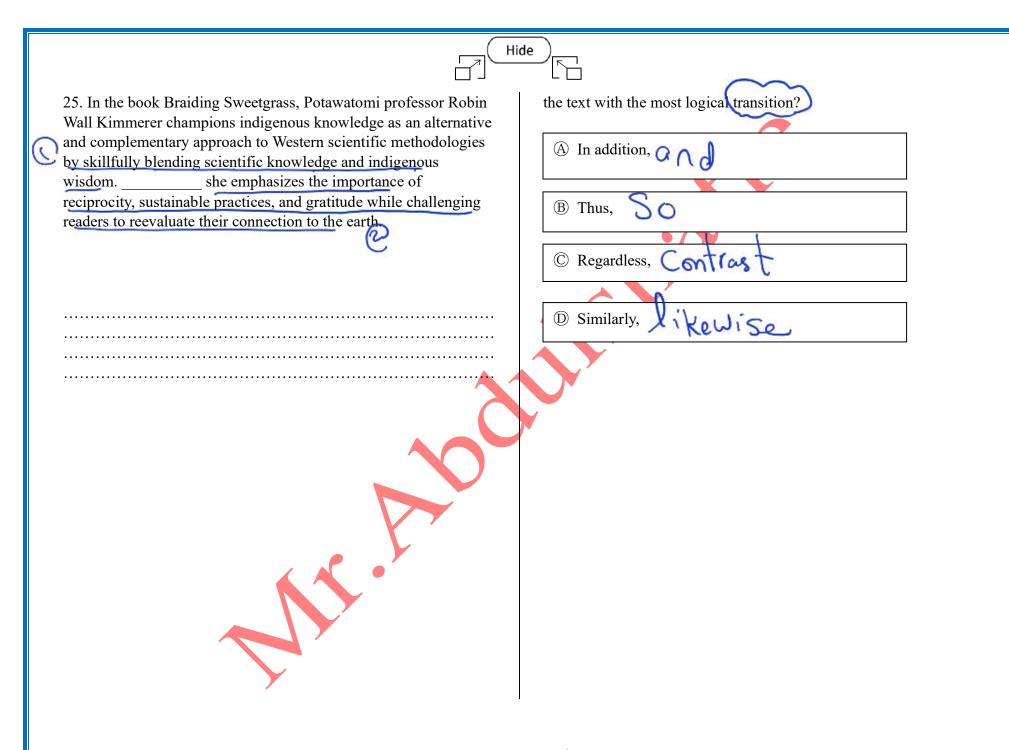
Hide	
20. In 2022, scientists at MIT developed a new type of shapememory material made of ceramics that is more resistant to high temperatures than the existing shape-memory metals. This material can spontaneously change shape and without accumulating damage, making it more suitable for use in a jet engine.	Which choice completes the text so that it conforms to the conventions of Standard English? (A) operate Present (B) operates Present (C) operates Present (D) operated Past

Hi	ide
21. French figure skater Surya Bonaly made history during the free skate program at the 1998 Nagano Olympics when she executed a backflip and successfully landed on a single blade Although Bonaly became the first and only Olympic figure skater to accomplish such a feat, her point deductions due to the ban on backflips that had been in effect since 1976.	Which choice completes the text so that it conforms to the conventions of Standard English? (A) performance to incur (B) performance that incurred (C) performance, incurring (D) performance incurred



Hide 23. On June 14, 1775, during the Revolutionary War, the Which choice completes the text so that it conforms to the Continental Congress created the Continental Army and nominated conventions of Standard English? George Washington as commander-in-chief. The next day, Washington was unanimously elected, while General Artemas (A) was commissioned Ward and General Horatio Gates, as second in command to Washington and Adjutant General of the United States Army, respectively. ® were commissioned © have been commissioned (D) are commissioned

Hid	de C
24. Scientists have long since discovered the genes responsible for cell wall metabolism, biosynthesis, and ripening in most fruits.	Which choice completes the text with the most logical transition? (A) However, (B) Indeed,
	© Consequently, D For example,



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

- Scientists at CERN have been using the Large Hadron Collider (LHC), the world's largest and most powerful particle accelerator, since 2008.
- LHC has a circumference of 27 kilometers and can accelerate particles to energies up to 13 TeV (teraelectronvolts) within its main ring.
- Scientists have also proposed a new particle accelerator called the Future Circular Collider (FCC) to replace the current one.
- The FCC is projected to achieve significantly greater collision energies, potentially reaching up to 100 TeV.
- These two particle accelerators are used to achieve the same scientific goals: probe the properties of matter, search for new particles, and investigate unanswered questions in particle physics.



The student wants to explain an advantage of the Future Circular Collider (FCC). Which choice most effectively uses relevant information from the notes to accomplish this goal?

- A Scientists at CERN are proposing the Future Circular Collider (FCC) to replace the Large Hadron Collider (LHC), which is currently the world's largest and most powerful particle accelerator.
- ® Both the Large Hadron Collider (LHC) and the Future Circular Collider (FCC) are particle accelerators that are used to probe the properties of matter, search for new particles, and investigate unanswered questions in particle physics.
- © Although the Large Hadron Collider (LHC) can only reach up to 13 TeV, it has been operational since 2008.
- ① The Future Circular Collider (FCC), a proposed particle accelerator, could potentially achieve collision energies up to 100 TeV, much greater than the current particle accelerator.

- 27. While researching a topic, a student has taken the following notes:
 - In 2013, a team led by María Parachú Marcó from Argentina sought to determine whether the survival rate of C. latirostris hatchlings was affected by different exposure times to S. invicta.
 - They found a negative correlation between the length of exposure to S. invicta and the survival rate of C. latirostris.
 - The control treatment, with no exposure, showed a survival rate of 100%.
 - Exposure for 2 minutes showed a survival rate of 50%.

•	Exposure	for 4	minutes	showed	a surviva	al rate o	f 35%.

The student wants to summarize the study. Which choice most effectively uses relevant information from the notes to accomplish this goal?

- Aware that exposure to S. invicta would result in a negative outcome, María Parachú Marcó studied the survival rate of C. latirostris, which was only 35% after a certain duration.
- María Parachú Marcó's 2013 study on the survival rate of
 C. latirostris revealed that as the exposure time to S. invicta increased, the survival rate decreased.
- © María Parachú Marcó and her team wanted to investigate whether the survival rate of C. latirostris hatchlings was affected by different exposure times to S. invicta.
- ① To conduct the 2013 study, researchers from Argentina collected data on C. latirostris hatchlings under different exposure times to S. invicta.