

**Choice B is the best answer.** According to the passage, Maguire’s study revealed that the mental athletes were using the same parts of the brain for memorization as were the London cabbies from the first study, a result that was initially puzzling. The questions in lines 74-78 highlight and expand on that result, making it clear that it is surprising to find that the mental athletes use images to remember numbers or use a part of the brain associated with navigation when trying to remember shapes. Although it became clear *how* the mental athletes were memorizing things, it was not clear why they were doing it that way.

Choice A is incorrect because the questions in lines 74-78 seem to reflect additional questions Maguire and others had based on their result and do not suggest that Maguire’s conclusions may not be reliable. Choice C is incorrect because the passage makes no mention of any earlier studies of the phenomenon of using images to remember numbers or to use a part of the brain associated with navigation when trying to remember shapes. Choice D is incorrect because the questions in lines 74-78 specifically address Maguire’s two studies but not her earlier work.

## Section 2: Writing Test

### QUESTION 1

**Choice C is the best answer** because the sentence is not directly related to the main point of the paragraph and should not be added. The main idea of the paragraph is that new high-tech fossil models help expand scientists’ knowledge of ancient species. There is no indication in the paragraph that these scientists are concerned about the age of the rocks in which fossils are found.

Choices A and B are incorrect because the sentence should not be added. It neither adds support to an argument nor provides a transition from one sentence to another. Choice D is incorrect because the sentence does not undermine any claim made in the paragraph.

### QUESTION 2

**Choice D is the best answer** because “promise” suggests the hope of good things to come. The models offer the possibility of advancing the field of paleontology in the future.

Choices A, B, and C are incorrect because they do not make sense in the context of the passage.

### QUESTION 3

**Choice B is the best answer** because the sentence should be kept: it provides a brief but useful explanation of how a 3-D printer works.

Choice A is incorrect. The sentence should be kept because it provides important information about 3-D printers, not because it explains why X-rays are used in CT scanners. Choices C and D are incorrect because the sentence is neither contradictory nor confusing and should not be deleted.

#### QUESTION 4

**Choice C is the best answer** because the relative pronoun “which” appropriately follows the independent clause “The plastic hardens quickly.” It introduces the relative clause explaining what the fact that the plastic hardens quickly allows the printer to do.

Choices A, B, and D are incorrect because each results in a comma splice (the joining of two independent clauses with only a comma).

#### QUESTION 5

**Choice A is the best answer** because no change is needed. The prepositional phrase “in order” and the infinitive “to learn” are appropriately used in conjunction to create an idiomatic phrase.

Choices B and D are incorrect because the phrases “in order for learning” and “so to learn” are not idiomatic. Choice C is incorrect because the pronoun “one” is inconsistent with the noun “team,” which identifies a specific team.

#### QUESTION 6

**Choice C is the best answer** because the personal plural pronoun “their” agrees in number with its antecedent, the plural noun “fossils.”

Choice A is incorrect because the pronoun “its” is singular and doesn’t agree with the plural antecedent “fossils.” Choices B and D are incorrect because a personal pronoun is needed in the sentence. Neither “it’s” (the contraction of “it is”) nor “there” is a personal pronoun.

#### QUESTION 7

**Choice D is the best answer** because sentence 2 should be placed after sentence 5 to make the paragraph most logical. Sentence 2 begins “But now,” signaling a contrast with the past. Sentences 4 and 5 tell what scientists did in the past, so it makes sense for sentence 2 to follow sentence 5.

Choices A, B, and C are incorrect because they result in a paragraph that does not proceed logically. Keeping sentence 2, which begins “But now,” where it is now (choice A) or placing it at the beginning of the paragraph (choice B) signals a contrast with the past that doesn’t make sense in context. Placing sentence 2 after sentence 4 (choice C) appropriately signals a contrast with the past but creates problems for sentence 5, which needs to be placed directly after sentence 4 to continue the discussion of past research limitations.

### QUESTION 8

**Choice D is the best answer** because the phrase “for example” indicates that an example will follow. In this paragraph, the sentence that follows the phrase provides a relevant example of the use of technology to “reproduce fossils that scientists cannot observe firsthand.”

Choices A, B, and C are incorrect because they set up expectations that are not carried out in the paragraph. “By contrast” in choice A and “nonetheless” in choice B suggest that contrary information will follow. “Besides” in choice C suggests that additional information will follow. None of these choices indicates what should be indicated: that an example will follow.

### QUESTION 9

**Choice B is the best answer** because the simple past tense verb “relied” is consistent with the other past tense verbs in the National Museum of Brazil example, such as “dug” and “determined.”

Choices A and D are incorrect because they provide singular verbs that don’t agree in number with the plural subject “researchers.” Choice C is incorrect because the future tense helping verb “will” is inconsistent with the other past tense verbs in the National Museum of Brazil example.

### QUESTION 10

**Choice C is the best answer** because it clearly and concisely combines the sentences in a way that shows the cause-effect relationship between the condition of the fossil and the decision by the research team.

Choices A, B, and D are incorrect because they do not effectively combine the sentences. In each of these choices, the sentence mischaracterizes the relationship between the condition of the fossil and the decision by the research team.

### QUESTION 11

**Choice C is the best answer** because the plural pronoun “they” correctly refers to its plural antecedent “researchers.”

Choices A, B, and D are incorrect because “one,” “he or she,” and “it” are singular pronouns. A plural pronoun is needed to agree in number with the plural antecedent “researchers.”

## QUESTION 12

**Choice D is the best answer** because no transitional phrase is needed between the two sentences. The first sentence indicates that Tweed wanted to silence Nast, and the second sentence simply states what happened next: that his attempt to do so failed.

Choices A, B, and C are incorrect because no transitional phrase or conjunctive adverb such as “therefore” or “furthermore” is needed between the sentences. The information in the second sentence neither results from information in the first nor is in addition to it. Rather, it tells what happened next: the first sentence indicates that Tweed wanted to silence Nast, and the second states that his attempt to do so failed.

## QUESTION 13

**Choice D is the best answer** because it is the only choice that clearly and concisely conveys the key information that “in the 1860s and the 1870s, . . . organizations known as ‘political machines’ started taking control of city governments.”

Choices A, B, and C are incorrect because they all contain unnecessary words or invert the logical order of words in ways that lead to vagueness and redundancy. In choice A, it is unclear if the pronoun “they” refers to “organizations” or “governments.” In choices B and C, word order is inverted, creating a lack of concision (“political organizations that were powerful” is used instead of “powerful political organizations”; “governments were taken control of” and “organizations . . . did so” are used instead of “organizations . . . started taking control of governments”).

## QUESTION 14

**Choice A is the best answer** because no words are needed between the noun phrase “purchasing votes” and the explanatory appositive phrase that follows it (“a form of . . .”).

Choices B, C, and D are incorrect because the participle “being” and the pronouns “that” and “which” are not needed to introduce the appositive phrase “a form of . . .,” which explains the concept of “purchasing votes.”

## QUESTION 15

**Choice B is the best answer** because the comma after “1860s” is used correctly with the comma after “group” to set off the inessential (nonrestrictive) clause “which controlled New York City in the 1860s.”

Choice A is incorrect because a dash cannot be used in conjunction with a comma to set off a nonessential clause. Either two commas or two dashes may be used, but not one of each.

Choice C is incorrect because a comma is not needed after “City.” Choice D is incorrect because a comma is necessary to separate the nonessential clause from the rest of the sentence.

## QUESTION 16

**Choice C is the best answer** because the sentence should be deleted. Although the information is true, it is not essential to the paragraph, which is focused on political machines in general and the Tammany Hall group in particular, not on Tweed himself.

Choices A and B are incorrect because the sentence should not be kept. Choice D is incorrect because, while the sentence should be deleted, it does not undermine or challenge the main claim of the passage.

## QUESTION 17

**Choice C is the best answer** because no comma is needed before “commented,” and the comma after “commented” correctly separates the first part of the sentence from the quotation it introduces.

Choices A, B, and D are incorrect because each includes one or more unnecessary commas.

## QUESTION 18

**Choice A is the best answer** because the adjective “famous,” which means widely known, clearly and concisely describes “images.”

Choices B, C, and D are incorrect because “well-known” and “commonly known” are repetitive when used with the adjective “famous,” which means widely known.

## QUESTION 19

**Choice D is the best answer** because it adds the most relevant supporting information. The paragraph is focused on the cartoons’ depictions of Tweed as a thief, so making an explicit connection between one cartoon and “Tweed’s greedy nature” is extremely relevant to the paragraph.

Choices A, B, and C are incorrect because they all contain irrelevant information. Information about Nast's other cartoons, Tweed's prison escape, and Tweed's hat is not important to add to the paragraph, which is focused on the cartoons' depictions of Tweed as a thief.

### QUESTION 20

**Choice D is the best answer** because the word "prosecuted" correctly indicates that Tweed was charged and tried for his crimes. The preposition "on" is idiomatic when used with the verb "prosecuted."

Choices A, B, and C are incorrect because the word "persecuted" means that someone is harassed or oppressed, not that he or she is charged with a crime. "Persecuted" doesn't fit into the context of this sentence, which is about the legal troubles of Tweed and his gang.

### QUESTION 21

**Choice A is the best answer** because the past tense verb "brought" is consistent with the other past tense verbs in the sentence, such as "escaped" and "fled."

Choices B, C, and D are incorrect because the participle "bringing," the present tense verb "brings," and the present perfect tense verb "has brought" are not consistent with the other verbs in the sentence.

### QUESTION 22

**Choice B is the best answer** because "triumph" indicates victory. It could be considered a victory for political cartoons that Tweed was recaptured because he was recognized from a Nast cartoon.

Choices A, C, and D are incorrect because "pinnacle," "culmination," and "apex" all suggest the highest point or end of something. None of these words indicates the appropriate relationship between the recapture of Tweed and the impact of Nast's cartoons.

### QUESTION 23

**Choice B is the best answer** because the singular possessive pronoun "its" is used correctly to refer to the singular noun "system."

Choice A is incorrect because the contraction "it's" cannot be used to show possession. Choice C is incorrect because "its" is already possessive; an apostrophe is unnecessary. Choice D is incorrect because "their" is a plural possessive pronoun that does not agree in number with the singular noun "system."

## QUESTION 24

**Choice B is the best answer** because it clearly and concisely combines the sentences to show the relationship between the claim (“the idea is obviously very attractive”) and the supporting information about the cameras’ cost.

Choices A, C, and D are incorrect because they mischaracterize the relationship between the claim (“the idea is obviously very attractive”) and the supporting information about the cameras’ cost. The claim about the idea’s attractiveness is not *in addition to* the information about the cost; rather, the information about the cameras’ cost supports the claim that the idea is very attractive.

## QUESTION 25

**Choice A is the best answer** because “however” is used correctly to indicate contrast. Some people consider the art space vital, but that group of people may be too small to generate necessary funding for the project.

Choices B, C, and D are incorrect because neither “therefore,” “in effect,” nor “as a rule” indicates the appropriate relationship between the two sentences being connected. The two sentences form a contrast: some people consider the art space vital, but that group of people may be too small to generate necessary funding for the project.

## QUESTION 26

**Choice B is the best answer** because no commas are needed to set off the restrictive clause (“that is easily understood and appreciated”) that follows the subject.

Choices A and D are incorrect because the clause that describes “work” is essential and should not be set off with punctuation. Setting off a clause with two commas or dashes indicates that it is nonessential to the sentence (nonrestrictive). Choice C is incorrect because no comma is needed between the two verbs.

## QUESTION 27

**Choice D is the best answer** because the sentence should not be added. The general information it contains is not relevant to this paragraph’s discussion of crowdfunding for the arts.

Choices A and B are incorrect because the sentence should not be added. Information about crowdfunding in general is not relevant to the discussion of the arts in this paragraph. Additionally, the sentence doesn’t support the writer’s point about funding of artistic projects.

Choice C is incorrect because, while the sentence should not be added, “funding received from public institutions” is not an idea that is developed in the passage.

### QUESTION 28

**Choice A is the best answer** because “in addition” appropriately introduces an additional problem with crowdfunding in the arts.

Choices B, C, and D are incorrect because “conversely,” “however,” and “thus” do not indicate the appropriate relationship between what is said earlier in the paragraph about problems with crowdfunding in the arts and the additional problem that follows.

### QUESTION 29

**Choice C is the best answer** because the pronoun “who” appropriately introduces a dependent clause defining “free riders.”

Choice A is incorrect because it results in a comma splice (two independent clauses cannot be joined by only a comma). Choice B is incorrect because it is not clear which people don’t contribute: “audiences” or “free riders.” Choice D is incorrect because the infinitive phrase “to not make” doesn’t make sense in the sentence.

### QUESTION 30

**Choice B is the best answer** because the plural pronoun “they” agrees in number with the plural noun “people” and results in a clear, straightforward clause: “if people begin to feel that paying for the art they love is someone else’s responsibility.”

Choice A is incorrect because the passive voice is unnecessary and adds some confusion about which antecedent the pronoun “them” is referring to: “arts” or “people.” Choices C and D are incorrect because the pronouns “him” and “her” and “he” and “she” are singular and do not agree in number with the plural antecedent “people.”

### QUESTION 31

**Choice C is the best answer** because the singular pronoun “her” is consistent with the pronoun “her” that is used earlier in the sentence to refer to the playwright.

Choices A and B are incorrect because they are plural pronouns that are not consistent with the singular pronoun “her” used earlier in the sentence to refer to the singular noun “playwright.” Choice D is incorrect because the singular pronoun “its” is not consistent with “her” and is not used to refer to a person.



### QUESTION 32

**Choice D is the best answer** because sentence 2, which mentions the high price of the playwright's tickets, logically follows sentence 5, which addresses how the price of tickets was determined.

Choices A, B, and C are incorrect because sentence 2 does not logically follow sentences 1, 3, or 4. Sentences 3, 4, and 5 present a logical sequence of activities that establish the ticket price: first the playwright presents the total cost of her production, then she projects the attendance, and then she sets a per-person cost and prices tickets accordingly. Sentence 2, which addresses the ticket price, must come after the completion of this sequence; it can't come before the sequence (choice A) or interrupt the sequence (choices B and C).

### QUESTION 33

**Choice A is the best answer** because it accurately interprets data in the graph. The category "dance" had the lowest amount of money raised but also had the highest percentage of projects fully funded.

Choices B, C, and D are incorrect because they do not accurately interpret the information provided in the graph.

### QUESTION 34

**Choice C is the best answer** because sentence 3 needs to be placed before sentence 2 for the paragraph to be cohesive. Sentence 3 presents a cause ("newspapers . . . have been hit especially hard by the widespread availability of free news online") and sentence 2 presents an effect of that cause ("newspapers have reduced or eliminated investigative resources").

Choice A is incorrect because sentence 3 needs to precede sentence 2, not follow it: sentence 3 presents a cause ("newspapers . . . have been hit especially hard"), and sentence 2 presents an effect ("newspapers have reduced or eliminated investigative resources"). Choice B is incorrect because sentence 1 needs to precede sentence 3, not follow it: sentence 1 offers a general assessment of "print journalism as a viable profession," and sentence 3 offers information about one form of print journalism (newspapers). Choice D is incorrect because sentence 3 is needed to provide an explanation for the "lower print circulation and diminished advertising revenue" noted in sentence 2.

### QUESTION 35

**Choice B is the best answer** because the plural noun “reporters” is used correctly as the object of the preposition “of” and because the colon appropriately joins two independent clauses, indicating that the second clause (“their work is expensive and time-consuming”) follows logically from the first (“It is not difficult . . . reporters”).

Choices A and D are incorrect because the singular possessive “reporter’s” does not provide an object for the preposition “of.” Choice C is incorrect because the comma after “reporters” creates a comma splice (the comma is used without a conjunction to join two independent clauses).

### QUESTION 36

**Choice B is the best answer** because the phrase “undertaken in” appropriately identifies why and for whom investigative journalism is conducted (“in the public interest”—that is, to serve the interests of all of the people instead of only a few).

Choice A is incorrect because “taking on the public interest” implies that investigative journalism is the adversary of the public interest (that is, it “takes on,” or confronts, the interests of ordinary people). Choice C is incorrect because it implies that investigative journalism overpowers or takes control of the public interest. Choice D is incorrect because it is unclear what “taking off from the public interest” might mean in this context.

### QUESTION 37

**Choice D is the best answer** because the general term “illegal activities” creates redundancy with the specific examples provided in the sentence and should be deleted. “Street crime,” “corporate wrongdoing,” and “political corruption” are all specific examples of “illegal activities,” so it is unnecessary to mention “illegal activities” as a separate item in the list.

Choice A is incorrect because the general term “illegal activities” creates redundancy with the specific examples of illegal activities provided in the sentence. Choices B and C are incorrect because they repeat ideas that are already in the sentence: “corporate wrongdoing” is a type of “business scandal,” and “political corruption” is a type of “abuse of government power.”

### QUESTION 38

**Choice C is the best answer** because the sentence is out of place in the paragraph: the year 1954 breaks the chronology of the other examples (1974, 2004), and the example is about television news instead of print journalism.

Choices A and B are incorrect because the sentence is out of place in the paragraph and should not be added. Choice D is incorrect because, while the passage should not be added, the reason

is not the one specified. The example of journalists reporting a story that exposes a person in power is consistent with the passage's definition of investigative journalism.

### QUESTION 39

**Choice D is the best answer** because “deterrent” and “rebuke to” appropriately indicate the effect that exposure by reporters has had on “malfeasance” (misconduct).

Choices A, B, and C are incorrect because they do not appropriately indicate the effect that exposure by reporters has had on “malfeasance” (misconduct). It is unclear how journalism would act as a “blockade” to misconduct, and it is not idiomatic to say that these reports have acted as an important “interference to” or “drag on” misconduct.

### QUESTION 40

**Choice B is the best answer** because the verb phrase “need not entail”—an inverted form of “does not need to entail”—appropriately conveys the writer's point that the decline in traditional print media does not *necessarily* mean “the end of investigative journalism.” In other words, this possibility is real but can be prevented.

Choices A and C are incorrect because “could not” and “will not” indicate certainty—in other words, that there is no possibility of an end to investigative journalism. Choice D is incorrect because “must not” suggests a call to action by the writer (“this *must* be prevented”) that is inconsistent with the approach taken in the paragraph.

### QUESTION 41

**Choice D is the best answer** because the noun phrase “innovative adjustments” sets up the examples that follow. The examples of the Organized Crime and Corruption Reporting Project, blogs and Twitter, and Help Me Investigate all refer to innovative projects and media that enable investigative journalism to thrive outside of traditional newspapers and magazines.

Choices A, B, and C are incorrect because they do not set up the specific examples of innovative projects and media that are helping fill the void left by the decline of investigative journalism in traditional newspapers and magazines.

### QUESTION 42

**Choice A is the best answer** because no punctuation is needed to separate the subject of the sentence, “enterprises,” from the adjective phrase beginning “such as.”

Choices B and C are incorrect because placing a colon before or after “such as” would create an error in sentence structure: a colon must be preceded by an independent clause. Choice D is incorrect because no comma is necessary here.

### QUESTION 43

**Choice A is the best answer** because the transitional phrase “for example” appropriately indicates that the Help Me Investigate project discussed in the sentence is an example of the use of social media mentioned in the previous sentence.

Choices B, C, and D are incorrect because neither “therefore,” “however,” nor “in any case” indicates the true relationship between this and the previous sentence. The Help Me Investigate project discussed in the current sentence is an example of the use of social media mentioned in the previous sentence.

### QUESTION 44

**Choice C is the best answer** because the full subject of the independent clause, “the advent of the digital age,” directly follows the dependent clause that introduces it.

Choices A, B, and D are incorrect because the subjects of their independent clauses do not directly follow the introductory dependent clause. “Far from marking the end of investigative journalism” refers to the “advent of the digital age,” not to “cooperation among journalists” (choice A) or “the number of potential investigators” (choice B). In choice D, an interrupting phrase (“by facilitating cooperation among journalists and ordinary citizens”) separates the subject from the dependent clause that modifies it.

## Section 3: Math Test - No Calculator

### QUESTION 1

**Choice D is correct.** From the graph, the  $y$ -intercept of line  $\ell$  is  $(0, 1)$ . The line also passes through the point  $(1, 2)$ . Therefore the slope of the line is  $\frac{2-1}{1-0} = \frac{1}{1} = 1$ , and in slope-intercept form, the equation for line  $\ell$  is  $y = x + 1$ .

Choice A is incorrect. It is the equation of the vertical line that passes through the point  $(1, 0)$ . Choice B is incorrect. It is the equation of the horizontal line that passes through the point  $(0, 1)$ . Choice C is incorrect. The line defined by this equation has  $y$ -intercept  $(0, 0)$ , whereas line  $\ell$  has  $y$ -intercept  $(0, 1)$ .