Albert Einstein
Old Grove Road
Nassau Point
Peconic, New York
August 2, 1939

F. D. Roosevelt,
President of the United States,
White House
Washington, D.C.

Sir:

Some recent work by E. Fermi and L. Szilard, which has been communicated 1
to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has [*sic*] arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable—through the 2
work of Joliot in France as well as Fermi and Szilard in America—that it may become possible to set up a new nuclear chain reaction in a large mass of uranium, by which vast amounts of power and large quantities of new radium-like elements would be generated. Now it appears almost certain that this could be achieved in the immediate future.

This new phenomenon would also lead to the construction of bombs, and it is 3
conceivable—though much less certain—that extremely powerful bombs of a new type may thus be constructed. A single bomb of this type, carried by boat and exploded in a port, might very well destroy the whole port together with some of the surrounding territory. However, such bombs might very well prove to be too heavy for transportation by air.

The United States has only very poor ores of uranium in moderate quantities. 4
There is some good ore in Canada and the former Czechoslovakia, while the most important source of uranium is Belgian Congo.

In view of this situation you may think it desirable to have some permanent 5
contact maintained between the Administration and the group of physicists

working on chain reactions in America. One possible way of achieving this might be for you to entrust with this task a person who has your confidence and who could perhaps serve in an official capacity. His task might comprise the following:

a) to approach Government Departments, keep them informed of the further development and put forward recommendations for Government action,
b) giving particular attention to the problem of securing a supply of uranium ore for the United States;
c) to speed up the experimental work, which is at present being carried on within the limits of the budgets of University laboratories, by providing funds, if such funds be required, through his contacts with private persons who are willing to make contributions for this cause, and perhaps also by obtaining the co-operation of industrial laboratories which have the necessary equipment.

I understand that Germany has actually stopped the sale of uranium from the Czechoslovakian mines which she has taken over. That she should have taken such early action might perhaps be understood on the ground that the son of the German Under-Secretary of State, von Weizacker, is attached to the Kaiser-Wilhelm-Institut in Berlin where some of the American work on uranium is now being repeated. 6

Yours very truly,
Albert Einstein

34. In both paragraphs 2 and 3, Einstein makes use of the dash

A. to emphasize the words set off
B. as an exception to the point immediately before it
C. to sound more scholarly and formal
D. as an informal aside to what was said previously
E. to summarize

35. The omission of a cordial opening and identification of the credentials of the writer imply all of the following <u>except</u>:

A. Einstein expects his name alone will identify him
B. Einstein assumes that the information he presents is compelling enough to command a response
C. Einstein believes himself too busy and important to waste time on pleasantries
D. As a scientist, Einstein was accustomed to having the facts speak for themselves
E. They've had previous contact

36. The purpose of the listing in paragraph 5 is to

A. secure Einstein's role as Roosevelt's "permanent contact"
B. suggest a plan of necessary action to ensure American security
C. increase research funding for further nuclear experimentation
D. end scientific research leading to the construction of nuclear bombs
E. send a letter of warning to Germany

37. Einstein's attitude can best be described as

A. confrontational
B. deferential
C. cautionary
D. complacent
E. antagonistic

38. Einstein's first paragraph suggests all of the following <u>except</u>:

A. FDR is not staying abreast of important scientific developments
B. Einstein is concerned about how the administration is handling the new developments in uranium research
C. Einstein is concerned that the administration may be unaware of important developments in the scientific community
D. Einstein is an authority in the use of uranium
E. FDR is familiar with the work of Fermi and Szilard

39. Which of the following best identifies Einstein's primary mode of discourse in his letter to FDR?

A. narration
B. process
C. analysis
D. persuasion
E. exposition

40. To illustrate the gravity of the situation, Einstein uses all of the following <u>except</u>:

A. "call for watchfulness" [paragraph 1]
B. "it is my duty" [paragraph 1]
C. "appears almost certain" [paragraph 2]
D. "in the immediate future" [paragraph 2]
E. "obtaining the cooperation" [paragraph 7]

41. Einstein understates the urgency of developing "chain reactions" in America

A. with the repetition of the words *might* and *may*
B. by excluding a fatalistic prediction
C. by mentioning "other countries repeating America's work"
D. with the phrase "though much less certain"
E. all of the above

42. To persuade Roosevelt to consider his recommendations, Einstein uses all of the following approaches <u>except</u>:

A. discussions with other members of the scientific community
B. appeals to fear
C. presentation of evidence
D. making predictions
E. offering a plan

43. In his letter, Einstein's own assumptions are all of the following <u>except</u>:

A. his interpretation of the manuscript is accessible
B. his reputation as a scientist lends weight to his opinion
C. his plan can be implemented quietly
D. his urgency concerning the situation is apparent
E. Germany recognizes the urgency of the situation

44. After a careful reading of the letter, which of the following inferences is <u>not</u> valid?

A. Einstein understood the urgency of addressing the nuclear problem.
B. Einstein assumed FDR would react to the letter.
C. Einstein viewed the private sector as a means of circumventing possible governmental impasse.
D. The Germans could have possibly misunderstood the significance of this scientific discovery.
E. Einstein is suspicious of German espionage.

Questions 45–56 are based on the following passage entitled "Reading an Archive," by Allan Sekula, which appeared in *Blasted Allegories*, a collection of contemporary essays and short stories, published by MIT Press in 1987.

...The widespread use of photographs as historical illustrations suggests that significant events are those which can be pictured, and thus history takes on the character of *spectacle*.[7] But this pictorial spectacle is a kind of rerun, since it depends on prior spectacles for its supposedly "raw" material.[8] Since the 1920's, the picture press, along with the apparatuses of a corporate public relations, publicity, advertising, and government propaganda, have contributed to a regularized flow of images: of disasters, wars, revolutions, new products, celebrities, political leaders, official ceremonies, public appearances, and so on. For a historian to use such pictures without remarking on these initial uses is naïve at best, and cynical at worst. What would it mean to construct a pictorial history of postwar coal mining in Cape Breton by using pictures from a company public relations archive without calling attention to the bias inherent in that source? What present interests might be served by such an oversight?

The viewer of standard historical histories loses any ground in the present from which to make critical evaluations. In retrieving a loose succession of fragmentary glimpses of the past, the spectator is flung into a condition of imaginary temporal and geographical mobility. In this dislocated and disoriented state, the only coherence offered is that provided by the constantly shifting position of the camera, which provides the spectator with a kind of powerless omniscience. Thus, the spectator comes to identify with the technical apparatus, with the authoritative institution of photography. In the face of this authority, all other forms of telling and remembering begin to fade. But the machine establishes the truth, not by logical argument, but by providing an experience. This experience characteristically veers between nostalgia, horror, and an overriding sense of the exoticism of the past, its irretrievable otherness for the viewer in the present. Ultimately, then, when photographs are uncritically presented as historical documents, they are transformed into aesthetic objects. Accordingly, the pretense to historical understanding remains, although that understanding has been replaced by aesthetic experience.[9]

But what of our second option? Suppose we abandoned all pretense to historical explanation, and treated these photographs as artworks of one sort or another? This book would then be an inventory of aesthetic achievement and/or an offering for disinterested aesthetic perusal. The reader may well have been prepared for these likelihoods by the simple fact that this book has been published by a press with a history of exclusive concern with the contemporary vanguard art of the United States and Western Europe (and, to a lesser extent, Canada). Further, as I've already suggested, in a more fundamental way, the very removal of these photographs from their initial contexts invites aestheticism.

I can imagine two ways of converting these photographs into "works of art," both a bit absurd, but neither without ample precedent in the current fever to assimilate photography into the discourse and market of the fine arts. The first path follows the traditional logic of romanticism, in its incessant search for aesthetic origins in a coherent and controlling authorial "voice." The second path might be labeled "post-romantic" and privileges the subjectivity of the collector, connoisseur, and viewer over that of any specific author. This latter mode of reception treats photographs as "found objects." Both strategies can be found in current photographic discourse; often they are intertwined in a single book, exhibition, or magazine or journal article. The former tends to predominate, largely because of the

continuing need to validate photography as a fine art, which requires an incessant appeal to the myth of authorship in order to wrest photography away from its reputation as a servile and mechanical medium . Photography needs to be won and rewon repeatedly for the ideology of romanticism to take hold.[10]

[7] See Guy DeBord, *La société du spectacle* (Paris: Editions Buchat-Chastel, 1967): unauthorized translation, *Society of the Spectacle* (Detroit: Black and Red, 1970: rev. ed. 1977).
[8] We might think here of the reliance, by the executive branch of the United States government, on "photo opportunities." For a discussion of an unrelated example, see Susan Sontag's dissection of Leni Reifenstahl's alibi that *Triumph of the Will* was merely an innocent documentary of the orchestrated-for-cinema 1934 Nuremberg Rally of the National Socialists. Sontag quotes Reifenstahl: "Everything is genuine. . . . It is *history—pure history.*" Susan Sontag, "Fascinating Fascism," *New York Review of Books* 22, no.1 (February 1975); reprinted in Under the Sign of Saturn (New York: Farrar, Straus, & Giroux, 1980), p. 82.
[9] Two recent books counter this prevailing tendency in "visual history" by directing attention to the power relationships behind the making of pictures: Craig Heron, Shea Hoffmitz, Wayne Roberts, and Robert Storey, *All that Our Hands Have Done: A Pictorial History of the Hamilton Workers* (Oakville, Ontario: Mosaic Press, 1981), and Sarah Graham-Brown, *Palestinians and Their Society, 1880–1946* (London: Quartet Books, 1980).
[10] In the first category are books that discover unsung commercial photographers: e.g., Mike Disfarmer, *Disfarmer: The Heber Springs Portraits*, text by Julia Scully (Danbury, N.H.: Addison House, 1976). In the second category are books that testify to the aesthetic sense of the collector: e.g., Sam Wagstaff, *A Book of Photographs from the Collection of Sam Wagstaff* (New York: Gray Press, 1978).

45. The first sentence (lines 1–3) does all of the following, <u>except</u>:

A. to indicate that material appears in this essay prior to this section
B. to indicate scholarly research
C. to indicate a cause/effect relationship
D. to state the thesis of the piece
E. to establish that the essay is based on the opinion of the author

46. The word *oversight* in line 13 refers to

A. "pictures from a company public relations archive" (11)
B. "without calling attention to the bias" (11–12)
C. "construct a pictorial history" (10)
D. "coal mining in Cape Breton" (10–11)
E. "present interests" (12)

47. An accurate reading of footnote 7 informs the reader that the author based his material on

A. *Society of the Spectacle*, rev. ed. 1977
B. *Society of the Spectacle*, 1970
C. *La société du spectacle*, 1967
D. The Black and Red, 1970
E. Buchat-Chastel, 1967

48. The author directly involves the reader using which of the following linguistic devices?

A. direct address
B. exhortation
C. metaphor
D. direct quotation
E. rhetorical question

49. "initial contexts" in line 38 refers to

A. "a second option" (30)
B. "historical explanation" (30–31)
C. "inventory of aesthetic achievement" (32)
D. "contemporary vanguard art" (35)
E. "disinterested aesthetic perusal" (33)

50. The main concern of the passage is contained in which of the following lines?

A. "Since the 1920's ... and so on." (4–8)
B. "The viewer ... critical evolutions." (14–15)
C. "In retrieving ... geographical mobility." (15–17)
D. "I can imagine ... of the fine arts." (39–41)

E. "The former ... mechanical medium." (48–51)

51. The most probable implication of this passage is that

A. historians are cynical
B. historians are naïve
C. readers/viewers must be aware of the bias inherent in source material
D. viewers/readers are ill-equipped to make critical evaluations
E. dealing with photographs demands a combination of the mechanical and the aesthetic

52. The purpose of footnote 9 is to

A. enhance the reputation of the writer
B. cite a primary source
C. direct the reader to opposing positions
D. compare differing cultures
E. provide an historical context

53. The tone of the passage can best be described as

A. argumentative and scholarly
B. romantic and artistic
C. philosophical and didactic
D. informative and sarcastic
E. informal and playful

54. According to the author, the power of photography as historical illustration is found in the

A. historian
B. spectator
C. picture press
D. image itself
E. camera

55. The last paragraph is primarily developed using which of the following rhetorical strategies?

A. cause and effect
B. comparison and contrast
C. definition
D. description
E. narration

56. The reader may infer from the footnotes that the author is a(n)

A. photographer himself
B. journalist reporting on photography
C. fan of Lenny Reifenstahl
D. established authority in this field
E. art critic

END OF SECTION I

The second part of the test is the 2-hour essay writing section. This is taken after the break following completion of the multiple-choice section of the exam. You will be required to write three different essays: analysis, synthesis, and argument.

Again, we do not want you to write any essays at this time; just take a careful look at each of the questions to get an idea of the types of writing assignments you are expected to produce. Essay questions are called **prompts** by the AP.