

PART I

Text 1

By 1776, when the United States was established, about 100 Native American tribal "nations" had survived the wars of the 15th, 16th, and 17th centuries, leaving about two to five million Native Americans living in the "lower 48" states and speaking more than 750 different languages.

5 From the 18th to the late 19th centuries, the United States made 370 formal treaties with Native American nations, following the same procedures of congressional and presidential approval that were followed for treaties with France or Great Britain. The fact that virtually all of these treaties were broken came from the feeling that the Native Americans were not important and, furthermore, powerless.

10 There are still more than one million Native Americans in the United States today. Significant numbers of them continue to live in wilderness and desert regions and also in Alaska, often engaging in traditional farming and hunting on the same lands where their ancestors lived for millennia. Contrary to popular assumptions or beliefs, most of them are not eager to adopt an average American lifestyle, despite the economic,
15 cultural, and legal pressures to do so.

Elsewhere in the world, millions of native peoples also live in a traditional manner while suffering varying degrees of impact from the expansion of technologically advanced societies. Tribal peoples are struggling to defend their ancestral lands in places like Indonesia, the Amazon forests, China, Australia, New Zealand, and parts of
20 Central Africa, to name just a few.

The problem of Native Americans today is directly related to the needs of

technologically developed societies to find and obtain natural resources in order to meet the unending demand for growth and technological fulfillment. The process began with land and gold over a hundred years ago and continues today as modern industry
25 demands coal, oil, and uranium.

Disregard for Native Americans' well-being was and is the result of one fundamental assumption: technologically advanced societies represent the ultimate expression of evolution, its final stage. It is this attitude--and its corresponding belief that native societies represent an earlier, inferior stage on the evolutionary ladder--that
30 seems to unify all modern political views: right, left, capitalist, and communist. Most people in modern, developed societies are in agreement about their common "superiority." Thus, it becomes all right to humiliate and thus sacrifice any way of thinking, or way of life, that stands in the way of a "progress" that they have invented.

31. According to the text, which statement best describes the population of Native Americans from the 15th to the 20th centuries?
- a. There has been a decline in the number of Native Americans
 - b. There are over 750 different tribal nations living in the U.S.
 - c. Native Americans are now living only in the "lower 48" states.
 - d. The number of Native American nations decreased from 100 to only two to five today.
32. What happened to the treaties made between the U. S. government and the Native American nations in the 18th and 19th centuries?
- a. The treaties were honored as were those with France and Great Britain.
 - b. Native Americans did not regard the treaties with the U. S. government as important.
 - c. Most of the treaties were broken as a result of the U. S. government's negative attitude toward Native Americans.
 - d. The treaties could not be carried out because procedures for congressional approval were not properly followed.
33. How do most Native Americans live today?
- a. Most are living comfortable lives in modern, technologically advanced cities.
 - b. Most are engaged in farming like native peoples in Indonesia and China.
 - c. Most are living simple lives in the lands where their ancestors lived for thousands of years.
 - d. Most cannot continue the traditional ways of wilderness life of their ancestors.
34. What does the text say about the Native Americans' attitude toward their traditional ways?
- a. Most want to become typical Americans.
 - b. Many want to give up their traditions.
 - c. Most feel economic, legal, and cultural pressures to change.
 - d. Many miss living in wilderness and desert areas as their ancestors did.

35. What does the text imply about the impact of the expansion of technological development on the Native Americans?
- The impact is negative and causes them hardship.
 - The impact makes them look toward other places in the world.
 - The impact can lead them to technological development.
 - The impact causes them to change their traditional ways.
36. According to the text, what seems to be the situation of the Native Americans today?
- They need more technological development.
 - They want their ancestral lands returned.
 - Their ancestral lands are being taken away.
 - Their demands for growth are not accepted.
37. What is the implied attitude of the writer concerning the situation of the Native Americans?
- Against helping them keep their lands.
 - Sympathetic to their situation.
 - Strongly opposed to their demands.
 - Neutral and not taking a particular point of view.
38. What are the needs of technologically advanced societies?
- More land.
 - More growth.
 - Technological achievements.
 - Natural resources.
39. What does the writer say about the needs of modern developed societies?
- They might lead to the destruction of the native peoples' way of life.
 - They are now recognized by the native peoples.
 - They might begin to be appreciated by the native peoples.
 - They are the same as those of the native peoples.

40. Why is the word "progress" in the last sentence of the text put in quotation marks?

- a. The author does not think it is really progress for everybody.
- b. The author is contrasting it to a common "superiority" in the fourth line from the bottom.
- c. The author is quoting this word from someone else.
- d. The author wants to place a special emphasis on this word.

Text 2

Observers of Nature have long marveled at how the earth's creatures appear to be uniquely suited to their individual tasks in life: the woodpecker with its tree-battering bill, the anteater with its long, slender nose that seems tailor-made for eating ants. Naturalists before Darwin usually attributed such neat groupings of form and function to the workings of some grand design, the consequences either of a deity or some vague philosophy. But what forces are responsible for the diversity of human invention? Where, for instance, did paper clips come from--and why? Why does the fork look like it does? Do new kinds of products suddenly appear --and die off-- through some technological Darwinian natural selection?

One theory to account for the wide diversity of products is expressed by the cliche, "Necessity is the mother of invention." On closer examination, however, the logic of this argument quickly breaks down. The automobile was never "needed" in society. Nobody before 1895 was searching for the replacement of the horse as a means of transportation; indeed, for the first ten years of its existence, the automobile was considered a novelty that would never become popular.

Henry Petroski, a professor of engineering at Duke University, believes that invention and technological change begin because of "desire" rather than "need". He believes that the form of things is always changing in response to their actual or perceived shortcomings or failures to function properly. His theory has much more in common with Darwin's theory of evolution than with theories of technological progress. Like Darwin, Petroski is hesitant to assign a final goal to the process of invention. Furthermore, like Darwin, Petroski emphasizes changes brought about by the

pressures of existing circumstances.

According to Petroski's theory, the world of products is so diverse because the
25 definition of failure is constantly shifting. In this connection, Petroski himself notes
that failure is largely in the mind of the perceiver. But who are the perceivers of product
failure? Who decides that a paper clip, a can opener, or a mechanical pencil is not
functioning well enough? Petroski says that it is the engineers and inventors
themselves. They are the most aware of the smallest design changes or the advantages
30 of the latest materials. It is these experts, then, who call attention to perceived failure
and do something about it.

41. According to the text, what did naturalists attribute to a "great" plan?

- a. A creature's individual tasks.
- b. A vague philosophy.
- c. A unique match of shape and function.
- d. The marvel of the earth's creatures.

42. Which of the following would be another meaning of the cliché in line 10?

- a. Mother provides our needs.
- b. We need to invent.
- c. We invent our needs.
- d. Need causes invention.

43. In the text, what does the example of the automobile show?

- a. Most new inventions are considered novelties.
- b. Most inventions are driven by desire rather than need.
- c. Most inventions need ten years to catch on.
- d. Most new inventions are needed.

44. According to the text, why is the form of things always changing?
- As a result of real or unreal deficiencies in performance.
 - Because of technological progress.
 - As a result of constantly changing circumstances.
 - Because of the need for change.
45. What would be an appropriate paraphrase of the word "needed" in line 12?
- Useful for normal life.
 - Required for everyday survival.
 - Necessary for technological development.
 - A replacement for other forms of transportation.
46. What do both Petroski's theory and Darwin's theory state?
- All changes occur as a result of evolution.
 - Internal pressures lead to change.
 - Change moves slowly and constantly toward a goal.
 - External pressures cause change.
47. Why does Petroski feel the definition of failure is constantly shifting?
- Technological progress influences failure.
 - Consumer expectations define failure.
 - New materials and new designs prompt change.
 - Products soon become boring.
48. According to Petroski, who decides whether a product in some way fails or not?
- Consumers.
 - Designers.
 - Theorists.
 - Advertisers.
49. What does the phrase "these experts" refer to in the last sentence of the text?
- Petroski and Darwin.
 - Manufacturers of products.
 - Engineers and inventors.
 - Observers of Nature.

PART II

According to an increasing number of researchers, most of the things human beings do are influenced by daily, monthly, and even yearly cycles that their bodies follow. Human beings have biological clocks, that is, definite rhythms or internal timekeepers that guide everything (50) breathing to eating to cell growth and renewal. (51),
5 researchers believe that we can benefit from understanding these rhythms; they are looking at rhythmic (52) as an aid to losing weight, diagnosing various mental (53), predicting the start of major physical illnesses, and (54) creativity.

Hunger and patterns involving how we digest our food (55) connected to daily and seasonal cycles of (56) and dark. Circadian rhythms (cycles of roughly 24 hours)
10 appear to control these (57) processes. They cause the proper chemicals in our stomachs (58) in place at the usual time to digest meals. When (59) from the outside world conflict with regular circadian rhythms, such as (60) we fly across time zones, for example, (61) patterns of eating and digestion are disturbed. Seasonal changes are also being studied for their (62), as common experience tells us that there is weight
15 (63) in winter months and loss in summer months.

New research on biological clocks (64) that disturbances in our circadian rhythms are somehow related to depression and mental illnesses. This research is being (65) to study Alzheimer's disease and schizophrenia, (66) circadian rhythms are irregular in many individuals with these disorders.

20 Our internal clocks may determine our performance and behavior, but unnatural (67) clocks rule our schedules. Starting at birth, we are encouraged, even (68) to

adapt our sleeping and waking patterns to those of the rigid, workday-based schedules. Yet researchers show that humans are most suited to perform various tasks at certain times or phases ₍₆₉₎ the 24-hour day. These ₍₇₀₎ can be manipulated by changes in mealtimes, light exposure, drug intake, and sleep.

50. a. from
b. by
c. with
d. for

51. a. Finally
b. Furthermore
c. Consequently
d. Subsequently

52. a. bodies
b. clocks
c. cycles
d. illnesses

53. a. diseases
b. causes
c. exercises
d. examples

54. a. doing
b. developing
c. believing
d. curing

55. a. seemed
b. seemingly
c. seem to be
d. seem to have

56. a. warm
b. cold
c. short
d. light

57. a. connective
b. seasonal
c. digestive
d. hungry

58. a. be
b. been
c. are
d. to be

59. a. schedules
b. news
c. predictions
d. schemes

60. a. when
b. if
c. that
d. for

61. a. irregular
b. perfect
c. tolerable
d. healthy

62. a. understanding
b. effect
c. sense
d. notion

63. a. change
b. gain
c. up
d. down

64. a. challenges
b. adjusts
c. indicates
d. encourages

65. a. found
b. operated
c. used
d. questioned

66. a. unless
b. however
c. because
d. nevertheless

67. a. biological
b. daily
c. mental
d. external

68. a. allowed
b. able
c. unable
d. forced

69. a. on
b. for
c. during
d. at

70. a. times
b. days
c. tasks
d. ways