

DBQ: Effects of 19th Century Technology

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Historical Context

Technology and innovation can have dramatic effects on society. Three technological developments of the 19th century that changed society were the Erie Canal, the railroads, and the cotton gin.

Task

- Describe the historical circumstances of each development.
- Explain some of the ways each development affected society.

Some Recommended Outside Information

- History of the Erie Canal
- Slavery in the antebellum (“pre-Civil War”) south
- Industrialization in the north

The Best Essay...

- Thoroughly develops all aspects of the task evenly and in depth
- Is more analytical than descriptive (analyzes, evaluates, and/or creates information)
- Incorporates relevant information from at least **“half plus one”** documents
- Incorporates substantial relevant outside information
- Richly supports the theme with many relevant facts, examples, and details
- Demonstrates a logical and clear plan of organization; includes an introduction and a conclusion that are beyond a restatement of the theme

Part A

Short-Answer Questions

Directions: Analyze the documents and answer the short-answer questions that follow each document in the space provided.

Document 1A

By 1825, the Erie Canal gave another boost to New York's already busy seaports. Commercial vessels could now travel north up the Hudson River all the way to Lake Erie. This new waterway not only connected the Atlantic Ocean to the Great Lakes, it caused a terrific boon [increase] in industry all along the Hudson River and made New York's ports and harbor more valuable than ever.

Between 1830 and 1860, New York City grew at an astounding rate. . . .

Source: Virginia Schomp, *New York Celebrates the States*, Benchmark

Document 1B

Prior to construction of the canal, New York City was the nation's fifth largest seaport, behind Boston, Baltimore, Philadelphia and New Orleans. Within 15 years of its opening [Erie Canal], New York [City] was the busiest port in America, moving tonnages greater than Boston, Baltimore and New Orleans combined. . . .

Source: New York State Canal Corporation

1a Based on the documents, state **one** way the Erie Canal affected the economic growth of **New York State**. [1]

Score

b Based on the documents, state **one** way the Erie Canal affected the economic growth of **New York City**. [1]

Score

Document 2

Shipping Freight During
the Erie Canal Era
(New York City to Buffalo)

	Dirt Road	Canal
Method	Wagon	Boat
Amount of Time	21 Days	8 Days
Cost	\$100/ton	\$10/ton

Source: James Silver, *American History Activities*,
The Center for Applied Research in Education (adapted)

2a According to this chart, how many days did it take to ship freight from New York City to Buffalo using the Erie Canal? [1]

_____ Score

b Using information from the chart, state **two** economic advantages of using the Erie Canal instead of dirt roads to transport freight during the canal era. [2]

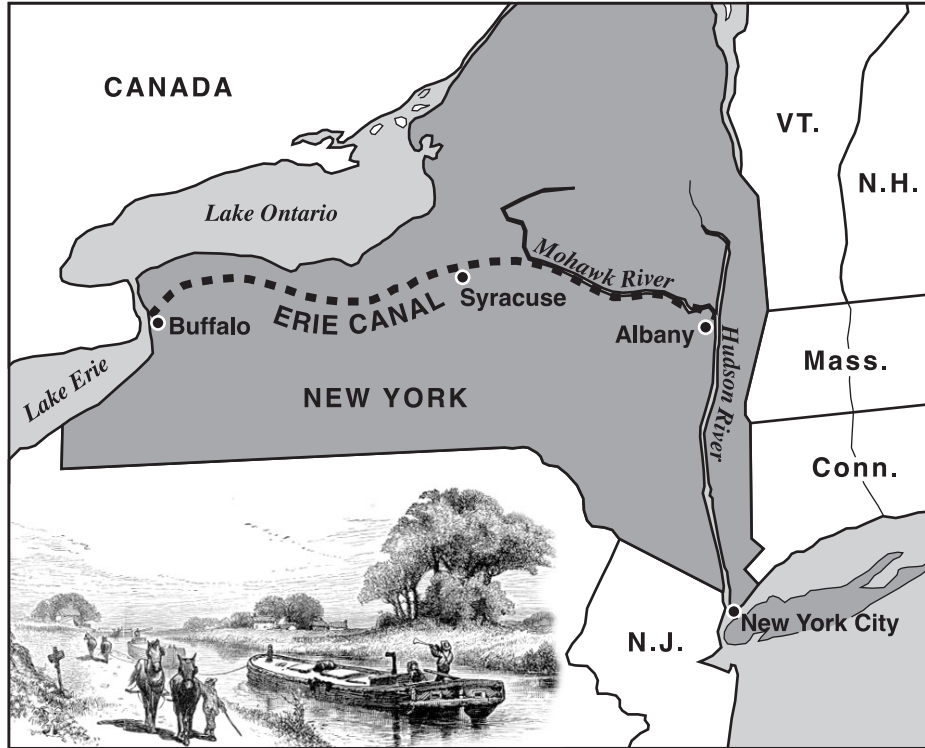
(1) _____

_____ Score

(2) _____

_____ Score

Document 3



Source: James Silver, *American History Activities*,
The Center for Applied Research in Education (adapted)

3 Based on the map, state **one** way the Erie Canal was important to the economic growth of the United States. [1]

Score

Document 5

Population of Western Cities

City	1860	1890
Denver	2,603	106,713
Omaha	1,883	140,452
Portland	2,874	46,385
San Francisco	56,802	298,997

Source: Population Abstract of the United States
(from *Creating America*, McDougal Littell)

5 What does this chart show about the effect of the transcontinental railroad on the population of western cities? [1]

Score

Document 6

From the West, the railroads carried eastward such raw materials as lumber, minerals, livestock, and grain. In midwestern cities like St. Louis, Chicago, Minneapolis, and Cleveland, the raw materials were processed. Grain was milled into flour. Hogs became bacon and hams. Cattle became beef. Iron ore was converted into steel. Lumber was cut into wood for housing. The processed goods were shipped by rail to eastern cities. From eastern cities, in turn, came manufactured goods, which were sold to westerners. . . .

Source: Lorna Mason et al., *America's Past and Promise*, McDougal Littell

6 Based on this passage, state *two* ways the railroads influenced economic growth in the United States. [2]

(1) _____

(2) _____

Score

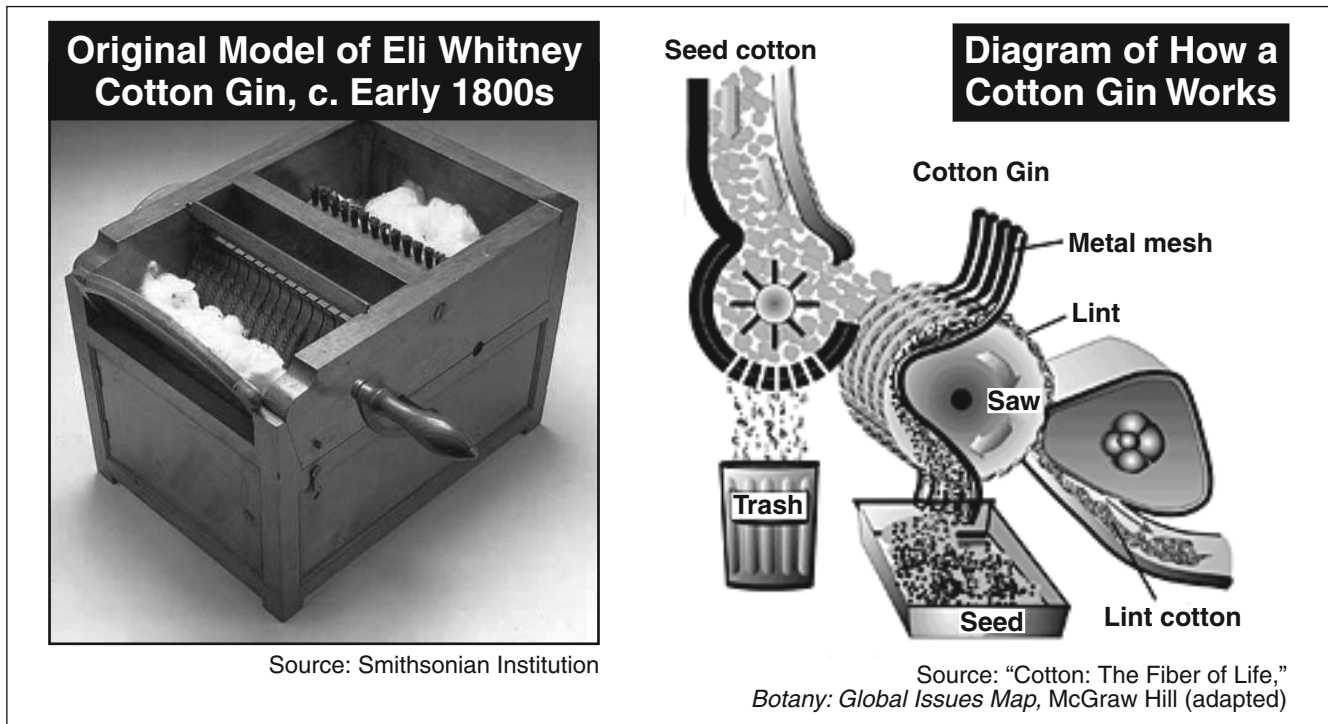
Part A

Short-Answer Questions

Directions: Analyze the documents and answer the short-answer questions that follow each document in the space provided.

Document 1

Eli Whitney invented the mechanical cotton gin in 1793. Before this invention, removing seeds from cotton was very time consuming.

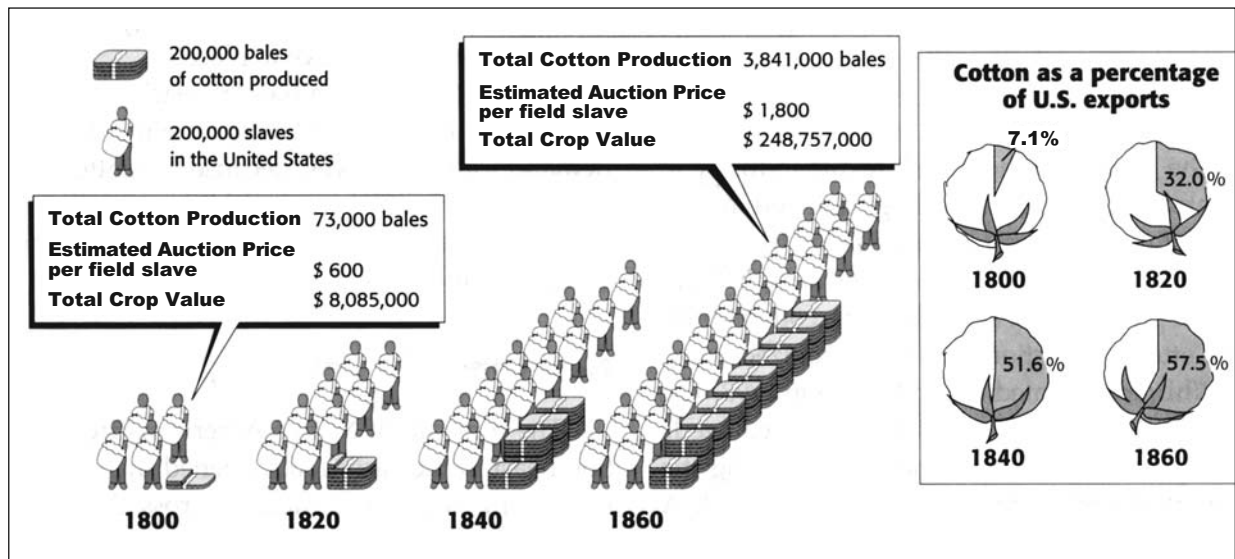


- 1 Based on this document, how did the use of this technology change the way cotton was processed?
[1]

Score

Document 2

Cotton Production in America, 1800–1860



Source: Joyce Appleby et al., *The American Journey*, Glencoe/McGraw-Hill, 1998 (adapted)

2a Based on this document, state **one** effect the cotton gin had on cotton production. [1]

Score

b Based on this document, state **one** effect the cotton gin had on the growth of slavery. [1]

Score

Document 3a

. . . However, like many inventors, Whitney (who died in 1825) could not have foreseen the ways in which his invention would change society for the worse. The most significant of these was the growth of slavery. While it was true that the cotton gin reduced the labor of removing seeds, it did not reduce the need for slaves to grow and pick the cotton. In fact, the opposite occurred. Cotton growing became so profitable for the planters that it greatly increased their demand for both land and slave labor. In 1790 there were six slave states; in 1860 there were 15. From 1790 until Congress banned the importation of slaves from Africa in 1808, Southerners imported 80,000 Africans. By 1860 approximately one in three Southerners was a slave. . . .

Source: The Eli Whitney Museum

- 3a Based on this document, state **one** effect the invention of the cotton gin had on the number of slave states. [1]

Score

Document 3b




. . . Because of the cotton gin, slaves now labored on ever-larger plantations where work was more regimented [organized] and relentless [unending]. As large plantations spread into the Southwest, the price of slaves and land inhibited [slowed] the growth of cities and industries. In the 1850s seven-eighths of all immigrants settled in the North, where they found 72% of the nation's manufacturing capacity. The growth of the "peculiar institution" [slavery] was affecting many aspects of Southern life.

Source: The Eli Whitney Museum

- 3b Based on this document, state **one** effect the invention of the cotton gin had on the growth of cities and industries in the South. [1]

Score

Transportation Methods of the mid-1800s

Method of Transportation	Average Speed	Shipping Costs
<p>Roads</p> 	<p>2 miles per hour by wagon 6–8 miles per hour by stagecoach</p>	<p>15 cents per ton per mile</p>
<p>Canals</p> 	<p>2–5 miles per hour</p>	<p>1.1 cents per ton per mile</p>
<p>Railroads</p> 	<p>10–20 miles per hour (including stops)</p>	<p>3.4 cents per ton per mile</p>

Source: George Rogers Taylor, *The Transportation Revolution, 1815 to 1860*, Rinehart and Company, 1951 (adapted)

4 Based on this chart, what was **one** advantage of using railroads compared with other methods of transportation in the mid-1800s? [1]

Score

Wanton [Merciless] Destruction of the Buffalo



Source: William Edward Webb, *Buffalo Land*, Hubbard Brothers, 1872 (adapted)

5 Based on this document, what was **one** negative effect of the railroad? [1]

Score