Answer all parts of the question that follows.

a) Identify ONE similarity between agricultural developments in the period circa 1450–1900 and the Green Revolution of the twentieth century.

b) Explain ONE difference between agricultural developments in the period circa 1450–1900 and the Green Revolution of the twentieth century.

c) Explain ONE political or social response to the Green Revolution in the twentieth century.

0–3 points

Score 3
Response accomplishes all three tasks set by the question.

Score 2
Response accomplishes two of the tasks set by the question.

Score 1
Response accomplishes one of the tasks set by the question.

Score 0
Response accomplishes none of the tasks set by the question.

Score NR
No response. Response is completely blank.

Scoring Guide

0–3 points
- ONE point for identifying one similarity between agricultural developments in the period circa 1450–1900 and the Green Revolution of the twentieth century
- ONE point for explaining one difference between agricultural developments in the period circa 1450–1900 and the Green Revolution of the twentieth century
- ONE point for explaining one political or social response to the Green Revolution in the twentieth century

Scoring Notes

Examples of responses to part (a) that would earn credit:
- Increases in food production leading to population increases was a similarity between agriculture in the period 1450–1900 and the Green Revolution.
- The development of new agricultural techniques in the period 1450–1900 and the use of genetically modified crops during the Green Revolution were similarities.
Short Answer Question 4 (continued)

• One similarity was the emergence of new technological developments in agriculture, such as increasing mechanization in the period 1450–1900 and the development of new irrigation techniques during the Green Revolution.

Examples of responses to part (b) that would earn credit:
• Increases in food production during the Green Revolution were significantly higher than in the period 1450–1900, as were the resulting population increases.
• The Green Revolution saw more sophistication as a result of greater scientific knowledge than in the period 1450–1900, as was evident in the introduction of new agricultural techniques such as the use of GMOs and the use of synthetic fertilizers.
• One difference between agriculture in the period 1450–1900 and the Green Revolution was that agriculture in the earlier period did not significantly reduce the amount of cultivated land needed to sustain populations, whereas the Green Revolution did.
• One difference between agriculture in the period 1450–1900 and the Green Revolution was that the most significant developments in agriculture in the period 1450–1900 occurred in fairly wealthy states in Western Europe, while the Green Revolution mostly affected developing countries in Asia and Latin America.

Examples of responses to part (c) that would earn credit:
• One political response to the Green Revolution was states encouraging the use of green agricultural techniques to sustain economic development.
• A social response to the Green Revolution was that environmentalists increasingly protested against the use of pesticides such as DDT.
• A political response to the Green Revolution was the weakening of socialist movements in many developing states such as India, as governments increasingly sought to blunt calls for land reform by highlighting potential technological solutions and increasing crop yields.
• One social response to the Green Revolution was protests by small farmers in both developed and developing countries because the expense of introducing the new farming techniques associated with the Green Revolution increased significantly, leading over time to the concentration of more and more land in the hands of wealthy landowners and agribusinesses.
The agricultural developments between 1850-1900 and the Green Revolution both lead to an initial boost in population due to the surplus of food being grown worldwide.

The agricultural developments between 1850-1900 occurred only in places where it was fertile enough for food to grow such as the Latin American colonies, South Africa, Southeast Asia, and more, however due to the new technology and genetic engineering capabilities created during the Green Revolution, land cultivation was much more prominent and it could be achieved in areas where it had previously been difficult, like Mexico.

One social response to the Green Revolution is the multitude of environmental protests that surfaced due to the massive increase in farming. People like Rachel Carson spoke out against the use of pesticides like DDT, as it was harming the local bird populations. This was one of the first major incidents of environmental protection, as the increase in pesticides and chemicals were harming the local animals, the surrounding water, and the land itself.
Write your answer to SHORT-ANSWER QUESTION 3 or 4 on this page only. Do NOT write outside the box.

a) One similarity between agricultural developments was the benefits they had on human societies. Both led to a large increase in food production which led to less people dying of starvation. The increase in agricultural production also led to an increase in population as more food means they can sustain more people.

b) Although some of the equipment used was similar one difference would be the much more highly advanced technology used during the Green Revolution. During the Green Revolution, scientists used genetically modified crops to help fulfill the needs of the people. Additionally, these genetically modified crops needed large amounts of chemicals and pesticides in order for them to grow and resist infection.

c) One social response to the Green Revolution was the impact of the pesticides and chemicals used on the environment. These chemicals and pesticides began to build up in the water supply and people who drank the water were at risk. Moreover, the pesticide could negatively effect insect populations and the water contamination would result in a decrease in freshwater fish populations. leading to a decrease in biodiversity.
A. One similarity between agricultural developments in period 1450-1900 and Green Revolution in the 20th century was in China the hanging gardens which was very high technology at the time. The Green Revolution helped with production of food in various areas such as in the uneven valleys in China to hang food off mountains.

B. One difference between agricultural developments in the period 1450-1900 and Green Revolution in the 20th century was that the hanging gardens were naturally produced with no modifications made to plants, while the Green Revolution was genetically modified seeds to make more and bigger appearing produce to sustain the population.

C. One social response to the Green Revolution was increase in population. Men and women were able to be healthy enough to create a baby and reproduce. The Revolution was able to sustain for all the people.

End of response area for Question 3 or Question 4
Overview

For this short-answer question, students were expected to identify a similarity and explain a difference between agriculture in the period 1450–1900 and the Green Revolution of the twentieth century. Additionally, student responses were expected to explain a political or social response to the Green Revolution during the twentieth century. The question addressed Key Concepts 4.1, 4.2, 5.4, 6.1, and 6.3 in the AP World History Curriculum Framework and the historical reasoning skills of Comparison and Contextualization.

Sample: 4A
Score: 3

a) The response earned 1 point for its discussion of how agriculture in the period 1450–1900 and the Green Revolution both led to a “boost in population due to the surplus of food.”

b) The response earned 1 point for explaining that new technology and genetic engineering during the Green Revolution allowed people to cultivate previously unusable land, which was not possible in the period 1450–1900.

c) The response earned 1 point for explaining how protests about the use of pesticides constituted a social response to the Green Revolution.

Sample: 4B
Score: 2

a) The response earned 1 point because it identifies that agricultural developments in the period 1450–1900 and the Green Revolution led to a “large increase in food production.”

b) The response earned 1 point because it explains that more advanced technology, genetically modified crops, and chemicals and pesticides were used during the Green Revolution to increase crop yields.

c) The response did not earn the point because it explains environmental developments that occurred as results of the Green Revolution, but it did not explain a political or social response to the Green Revolution.

Sample: 4C
Score: 1

a) The response did not earn the point because it does not identify a historically accurate example of a similarity between agricultural developments in the period 1450–1900 and the Green Revolution.

b) The response earned 1 point because it explains that the Green Revolution used genetically modified seeds “to make more and bigger appearing produce to sustain the population.”

c) The response did not earn the point because it explains a demographic development that resulted from the Green Revolution rather than a social or political response.