

2023

AP<sup>®</sup>



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# AP<sup>®</sup> Human Geography

## Sample Student Responses and Scoring Commentary

### Set 1

#### **Inside:**

##### **Free-Response Question 2**

- Scoring Guidelines**
- Student Samples**
- Scoring Commentary**

**Question 2: One Stimulus****7 points**

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**(A) Describe the concept of an early hearth of domestication. 1 point**

Accept one of the following:

- A1. A location where new practices develop and/or from which new practices spread.
- A2. A location where a particular type of plant or animal was first domesticated.
- A3. Locations where early civilizations domesticated plants or animals (e.g., Fertile Crescent, Indus River Valley, Southeast Asia, China, Andean Highlands, Amazonia, and/or Central America).
- A4. An ancient civilization whose farmers converted wild plants or animals into farmable and/or domesticated varieties over time.
- A5. A region (e.g., river valley) where a common wild plant or animal was cultivated into a farmable variant through selective breeding.

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**(B) Identify the crop listed in the table that has diffused the least from its hearth of domestication to the countries listed in the table. 1 point**

Accept the following:

- B1. Yams diffused the least.

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**(C) Explain how food preferences can be a culture trait. 1 point**

Accept one of the following:

- C1. Many foods have distinct characteristics (e.g., ingredients, preparations) that are indicative of a specific culture group.
  - C2. Many culture groups identify with one or more national dishes that represent the typical food culture of a society.
  - C3. Many foods contain an ingredient or crop that is local to the region inhabited by a culture group.
  - C4. Many foods are part of a way of life, and/or are forbidden for a group of people, as represented in the belief systems, religion, tools, material goods (artifacts), calendars, and/or holidays of a culture.
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**(D) Explain how the Columbian Exchange contributed to a crop’s diffusion beyond its hearth of domestication. 1 point**

Accept one of the following:

- D1. The Columbian Exchange led to the relocation or movement of crops from one part of the world to another part of the world through conquest, ecological imperialism, colonization processes, and/or along trade routes.
- D2. The Columbian Exchange was a process by which crops moved from one part of the world to another part of the world because of changing food preferences, cultural assimilation, and/or changing agricultural practices.
- D3. The Columbian Exchange may have accidentally or unintentionally introduced a new crop beyond its hearth of domestication (e.g., seeds or plants that may have been “stow-aways” in containers).

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**(E) Explain how the data in the table support the concept of a crop’s consumption pattern being the result of globalization. 1 point**

Accept one of the following:

- E1. The high per capita production of corn, potatoes, rice, and/or cassava in locations far from the hearth (e.g., Brazil produces 1,056 pounds of corn per capita) supports the idea of this crop being a globalized crop.
  - E2. The high consumption of corn, potatoes, rice, and/or cassava in locations far from the hearth (e.g., rice consumed outside of China) supports the idea of this crop being a globalized crop.
  - E3. Globalized food culture, popularized food culture, global media coverage of food, and/or globalized consumer food preferences can be represented in the data where a crop is commonly produced away from its hearth of domestication.
  - E4. Globalized populations, multicultural societies, global migration patterns, and/or cultural syncretism can be represented in the data where a crop is commonly produced away from its hearth of domestication.
  - E5. Globalized trade and transportation facilitated by free-trade policies, neoliberal policies, complementarity, comparative advantage, competitive advantage, containerization, and/or bulk rail and ship transport can be represented in the data where a crop is commonly produced away from its hearth of domestication.
  - E6. A globalized economy, increases in economic development, and/or the growth of a global middle class of consumers can be represented in the data where a crop is commonly produced away from its hearth of domestication.
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- (F) Explain why a crop may be farmed intensively in a less developed country and be farmed extensively in a more developed country. 1 point**

Accept one of the following:

- F1. Subsistence or intensive farming of a staple crop in less developed countries may be done on small farm plots used to feed a household, whereas extensive or commercial farming in more developed countries would be practiced on large farms for a company's consumers.
- F2. Some farming of staple crops in less developed countries is based on intensive manual labor (e.g., using hand tools, animal power), whereas most farming in more developed countries is mechanized and/or uses limited human or animal labor inputs and is extensive.
- F3. Farmers in less developed countries may not be able to afford or have access to the investment capital, labor-saving equipment, seed supplies, and/or agricultural chemicals needed for extensive farm production, and thus use intensive human labor, whereas farmers in more developed countries tend to have financial resources for investments in extensive farming inputs.
- F4. Many farms in less developed countries use available local resources to feed families or local communities, whereas farms in more developed countries take advantage of economies of scale to produce for large populations.

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- (G) Explain ONE way the global supply chain links crops such as those listed in the table to consumers in other countries. 1 point**

Accept one of the following:

- G1. Crops are transported internationally to consumers, with one of the following steps: storing, processing, packaging, wholesaling, and/or retailing.
- G2. Crop use in the global restaurant and fast-food industries, crops are cultivated and/or processed in one country and are then distributed through supply chains to local restaurants and/or chain restaurants for cooking in another country.
- G3. Due to the increased global consumption of frozen foods, dried foods, canned foods, and/or dehydrated foods, crops can be cultivated and processed into different preserved forms and then distributed to other countries for long-term storage by wholesalers, grocery stores, household consumers, and/or in restaurants until needed for cooking.
- G4. Crops are sent to facilities that process them into other forms (e.g., corn for ethanol, animal feed) which are shipped to wholesalers, retailers, and/or sold to consumers in other countries.

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**Total for question 2: 7 points**

**Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

- (A) China is an early hearth of domestication of rice. This is the hearth as it was where the practice of farming rice for subsistence began and continued.
- (B) The crop that has diffused the least from its hearth is Yam.
- (C) Food preference can be a culture trait since when traced the food back to its hearth, we can see that the food that was planted was suitable for the environment the cultural group live near by, so overtime the practice of that certain crop grew around the group and eventually becomes a tradition even after the 2nd agricultural revolution.
- (D) The Columbian was the exchange of crops ~~from the~~ between ~~the~~ Europe and America. As crops such as squash, potatoes, maize made its way to the Europe away from its hearth, it slowly diffused around Europe and around other parts of the world through trades.
- (E) The data in table supports the concept of a crop's consumption pattern being the result of globalization. It is the fact that ~~rice~~ corn have diffused its way to China, Peru and Nigeria which are around the globe, which is a result of globalization, as globalization explains that the connection and relation between places and people around the world are becoming closer or more accessible.
- (F) A crop may be farmed intensively in a less developed country because the lack of mechanization and technology the less developed can offer, so its crop production will require

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- **Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

(F) tons of labor force, while on the other hand, farming will be more extensive in the developed countries because they have technologies such as machines and GMOs, which means they do not need a lot of manual labor force as most work are done by machines.

(G) Through transportation, Brazil could work with processing ~~food~~ food industries in China and focuses on farming corn, then once harvested it will be transported to China to be processed to what-ever products then, the products will be sent off to large markets such as Walmart, Winco, all across the globe.

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**Important:** Completely fill in the circle that corresponds to the question you are answering on this page.

Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

A. An early hearth of domestication is where a specific crop was first grown - where it originated.

B. The crop that diffused the least is yam.

C. If a certain food or recipe has been made traditionally by people of a certain culture, then those people may want to continue to eat that food, whereas other cultures may not even know of its existence, leading to a low demand. This will lead to that specific culture being the only one who consumes that crop.

D. The Columbian Exchange diffused many crops around the world because of trade. A crop that typically was grown in one specific region was changed to being grown in many different, unique regions - away from the hearth of domestication.

E. Globalization led to foreign ideas, products, and even foods to be introduced to new places. This table shows that certain crops spread to countries reasonably far away from its hearth. Without globalization, these crops couldn't have been transported or even simply introduced to these new locations.

F. Less developed countries primarily have economies in the primary sector, which deals with harvesting raw materials. If a country's main source of income comes from exporting crops, then they will farm intensively in order to produce a much greater yield than more developed countries, who don't really ~~rely~~ rely nearly as much on exports.

G. Countries with a worse economy (less developed countries) will serve as the location of many plantations or other farms that produce solely for more developed countries. The listed countries are cheap places to produce the listed crops, and therefore will mass-produce them to be exported to more developed countries (the consumers).

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Question 1

Question 2

Question 3



Begin your response to each question at the top of a new page. Do not skip lines.

The early concept of domestication of hearth was that they needed each hearth to be where the crops would benefit the most for human use/consumption. Yams are the crop that has diffused the least from its hearth of domestication, only 3 were brought to Brazil and the rest stayed in Nigeria. Food preferences can be a culture trait for a few reasons. First, a certain food could not be allowed in certain cultures or religions. Next, someone could just not be used to eating foods that are different than what they're used to in their religion or culture. The Columbian Exchange contributed to a crop's diffusion beyond its hearth of domestication by introducing new crops to different countries, causing them to want to grow or import them. The data in the table supports the concept of a crop's consumption pattern being the result of globalization by showing how some crops became popular worldwide. A crop may be farmed intensively in a less developed country and extensively in a more developed country because of climate conditions, cost, and resources. One way the global supply chain links crops to consumers in other countries by first introducing the crop then if they liked it, they may start importing it.

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## Question 2

**Note:** Student samples are quoted verbatim and may contain spelling and grammatical errors.

### Overview

This one-stimulus question is centered on agriculture and globalization. The stimulus was a table titled “Per Capita Production of Staple Food Crops in Hearth-of-Domestication Countries,” with data from five countries (Brazil, China, Mexico, Nigeria, and Peru) and five crops (corn, potato, rice, yam, and cassava).

In answering this question, students were expected to demonstrate knowledge from two different units of the course: Unit 3: Cultural Patterns and Processes and Unit 5: Agriculture and Rural Land-Use Patterns and Processes. Students were expected to use skills from across the course skills matrix; however, the two skill areas most used were those from Skill Category 2 (Spatial Relations) and Skill Category 3 (Data Analysis).

In part A of this question, students were asked to describe the concept of an early hearth of domestication.

In part B students were asked to identify from the table the crop that has diffused the least from its hearth of domestication to the countries listed in the table. Students needed to read and understand the chart to answer part B.

In part C students were to explain how food preferences can be a culture trait.

In part D students were asked to explain how the Columbian Exchange contributed to a crop’s diffusion beyond its hearth of domestication.

In part E students were asked to explain how the data in the table support the concept of a crop’s consumption pattern being the result of globalization. Students needed to use their table reading and comprehension skills, as well as their mental world maps, to identify where the hearths were and then connect this to levels of production in various parts of the world. They also needed to realize that the production of a crop in a country outside its hearth country/area implies that the crop is being consumed (at least in some part) in the countries that are producing it today.

In part F students were to explain why a crop may be farmed intensively in a less developed country and be farmed extensively in a more developed country.

In part G students were asked to explain one way global supply chains link crops (such as those listed in the table) to consumers in other countries.

### Sample: 2A

#### Score: 7

The response to part A earned 1 point because it describes the concept of an early hearth of domestication as a location where new practices develop or from which new practices spread.

The response to part B earned 1 point because it identifies the crop listed in the table that has diffused the least from its hearth of domestication to the countries listed in the table as yams.

## Question 2 (continued)

The response to part C earned 1 point because it explains how food preferences can be a culture trait as many foods contain an ingredient or crop that is local to the region inhabited by a culture group.

The response to part D earned 1 point because it explains how the Columbian Exchange contributed to a crop's diffusion beyond its hearth of domestication as the result of trade.

The response to part E earned 1 point because it explains how the data in the table support the concept of a crop's consumption pattern being the result of globalization as crops have diffused far from their hearths.

The response to part F earned 1 point because it explains why a crop may be farmed intensively in a less developed country and be farmed extensively in a more developed country. It states that farmers in less developed countries may not be able to afford or have access to the investment capital, labor-saving equipment, seed supplies, or agricultural chemicals needed for extensive farm production and, thus, use intensive human labor, whereas farmers in more developed countries tend to have financial resources for investments in extensive farming inputs.

The response to part G earned 1 point because it explains one way the global supply chain links crops such as those listed in the table to consumers in other countries as crops are transported internationally to consumers, with the example of corn farmed in Brazil and processed in China, then sent across the world to retailers such as Walmart.

### **Sample: 2B**

#### **Score: 5**

The response to part A earned 1 point because it describes the concept of an early hearth of domestication as a location where a specific crop was first grown or domesticated.

The response to part B earned 1 point because it identifies the crop listed in the table that has diffused the least from its hearth of domestication to the countries listed in the table as yams.

The response to part C earned 1 point because it explains how food preferences can be a culture trait because a certain food or recipe has been made traditionally.

The response to part D earned 1 point because it explains how the Columbian Exchange contributed to a crop's diffusion beyond its hearth of domestication because of trade.

The response to part E earned 1 point because it explains how the data in the table support the concept of a crop's consumption pattern being the result of globalization. It identifies the high per capita production of corn, potatoes, rice, or cassava in locations far from their hearth as support for the idea of these being globalized crops.

The response to part F did not earn a point because it does not explain why a crop may be farmed intensively as export crops are farmed extensively.

## Question 2 (continued)

The response to part G did not earn a point because it does not explain one way the global supply chain relies on modes of transportation.

### **Sample: 2C**

#### **Score: 3**

The response to part A did not earn a point because it does not describe the concept of an early hearth of domestication.

The response to part B earned 1 point because it identifies the crop listed in the table that has diffused the least from its hearth of domestication to the countries listed in the table as yams.

The response to part C earned 1 point because it explains how food preferences can be a culture trait as many foods are part of a way of life or are forbidden for a group of people and are represented in the belief systems, religion, tools, material goods, calendars, or holidays of a culture.

The response to part D earned 1 point because it explains how the Columbian Exchange contributed to a crop's diffusion beyond its hearth of domestication "by introducing new crops to different countries, causing them to want to grow or import them."

The response to part E did not earn a point because it does not explain how the data in the table support the concept of a crop's consumption pattern being the result of globalization.

The response to part F did not earn a point because it does not explain why a crop may be farmed intensively in a less developed country and be farmed extensively in a more developed country.

The response to part G did not earn a point because it does not mention a mode of transportation.