

HUMAN GEOGRAPHY

SECTION II

Time—1 hour and 15 minutes

3 Questions

Directions: You have 1 hour and 15 minutes to answer all three of the following questions. It is recommended that you spend approximately one-third of your time (25 minutes) on each question. It is suggested that you take up to 5 minutes of this time to plan and outline each answer. You may plan your answers in this orange booklet, but no credit will be given for anything written in this booklet. **You will only earn credit for what you write in the separate Free Response booklet.**

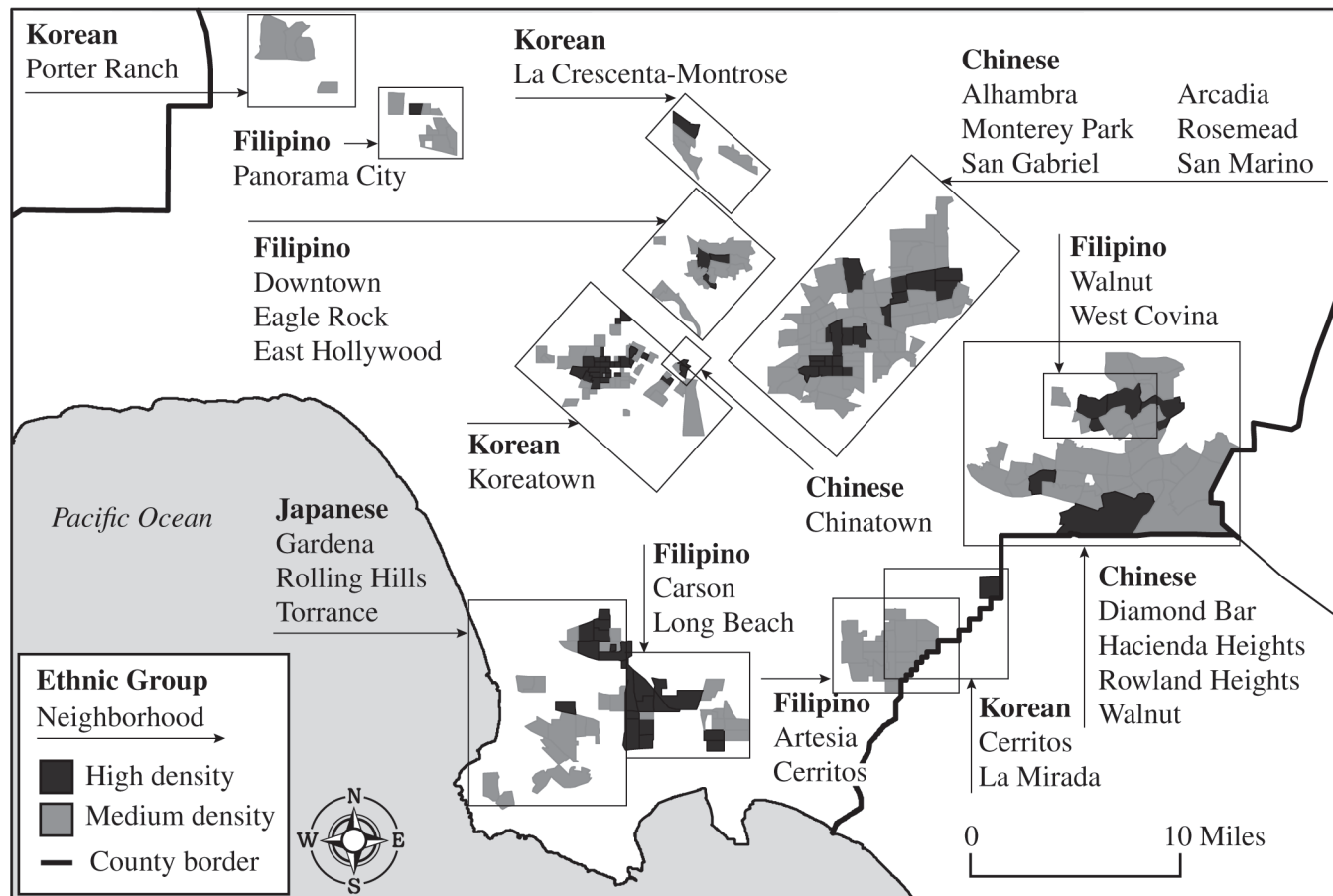
Question 1

1. The availability of food in the context of a growing world population is influenced by many social, environmental, and economic factors.
 - A. Define the concept of carrying capacity.
 - B. Describe ONE way that humans have altered the environmental sustainability of agricultural lands.
 - C. Explain how transportation technology has increased economies of scale in the agricultural sector of less developed countries.
 - D. Explain a likely negative economic outcome of Green Revolution agricultural practices on rural communities.
 - E. Explain ONE weakness of Malthusian theory in predicting the relationship between food production and population growth in contemporary society.
 - F. Explain how surplus food production has changed the global market for local agricultural products.
 - G. Explain the degree to which Green Revolution agricultural practices were effective in reducing hunger in less developed countries. (Response must indicate the degree [low, moderate, high] and provide an explanation.)

Begin your response to this question at the top of a new page in the separate Free Response booklet and fill in the appropriate circle at the top of each page to indicate the question number.

Question 2

Selected Asian Ethnic Neighborhoods in Los Angeles County, California



Source: United States Census Bureau

2. The map shows predominantly Asian ethnic neighborhoods in Los Angeles County, California. The names of the neighborhoods and the densities of the ethnic groups are identified on the map.
- Identify ONE neighborhood labeled on the map where two or more Asian ethnic groups reside.
 - Describe the spatial pattern of Chinese ethnic neighborhoods labeled on the map.
 - Explain ONE way immigrants may choose to assimilate into their new place of residence.
 - Explain ONE way immigrants may preserve their ethnic traditions in their new place of residence.
 - Describe ONE way that ethnic neighborhoods may contribute to a sense of place in large metropolitan areas such as Los Angeles.
 - Explain how the process of redistricting may be used to decrease an ethnic community's political power.
 - Explain how the process of redistricting may be used to increase an ethnic community's political power.

Question 1: No Stimulus**7 points****(A) Define the concept of carrying capacity.****1 point**

Accept one of the following:

- A1. The number of people a particular place, area, and/or the Earth can support.
- A2. Population size, distribution, and/or density affects how many people the environment and its natural resources can support.
- A3. The number of living organisms that an area or habitat can support without environmental degradation.
- A4. Changes in population density and/or population distribution may affect the capacity of the environment to meet the population's needs.

(B) Describe ONE way that humans have altered the environmental sustainability of agricultural lands.**1 point**

Accept one of the following:

Decreased environmental sustainability

- B1. Overuse or use of synthetic fertilizers, pesticides, and/or herbicides that harm ecosystems (e.g., water, air, soil) and/or increase pollution.
- B2. Overuse or use of resources (e.g., water, air), reducing productivity.
- B3. Overuse, erosion, or nutrient depletion of soil, reducing productivity.
- B4. Overuse of irrigation, depleting water resources, reducing soil nutrients (via runoff), or contributing to soil salinization.
- B5. Agricultural practices (e.g., monocropping, commercial agriculture, increased use of high-yield seeds, GMOs, and/or biotechnology) have reduced biodiversity and/or depleted soil nutrients.

OR

Increased environmental sustainability

- B6. Improved management of farm resources (e.g., water, soil, fertilizers, pesticides) has helped ecosystems.
- B7. Use of organic agricultural practices, including natural fertilizers, pesticides, and/or herbicides.
- B8. Restoration of environmentally damaged areas by implementing sustainable agricultural practices.
- B9. Crop rotation which supports soil health (fertility) and/or avoids large-scale environmental damage.
- B10. Decreased irrigation and/or extraction of water from aquifers or groundwater resources.
- B11. Conservation of farmland (e.g., fallowing, erosion control) and/or local resources (e.g., water supplies, native species).

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| (C) | Explain how transportation technology has increased economies of scale in the agricultural sector of less developed countries. | 1 point |
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Accept one of the following:

- C1. Trucks, trains, and/or shipping containers can move large and/or larger quantities of crops, increasing production and/or consumption.
- C2. Farm machinery (e.g., tractors, harvesters) has helped reduce the amount of human labor and/or increased the amount of production.
- C3. Farm machinery has allowed farms to increase the amount of farmland with reduced labor costs and/or improved efficiency.
- C4. Chemical herbicides, pesticides, and/or fertilizers applied by transportation technology (e.g., tractor, airplane) have reduced labor and/or increased crop yields.
- C5. Airplanes and/or ships are used to transport perishable products (e.g., flowers, fruits, vegetables), increasing their sales in other markets.

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| (D) | Explain a likely negative economic outcome of Green Revolution agricultural practices on rural communities. | 1 point |
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Accept one of the following:

- D1. Pollution of water, air, and/or soil resources harms economic productivity or livelihoods.
 - D2. Smaller farms may close, and/or farmers may sell land because they cannot compete with larger farms that can afford Green Revolution technologies.
 - D3. Loss of agricultural jobs and/or loss of access to farmland may result in loss of income or migration (e.g., rural-to-urban).
 - D4. Expensive farm inputs (e.g., high-yield seeds, agricultural chemicals, fossil fuels) increase the cost of agricultural production and/or reduce profits for farms.
 - D5. Changes in land ownership (tenure), land use patterns, and/or agriculture-related jobs may economically disadvantage subsistence farmers.
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(E)	Explain ONE weakness of Malthusian theory in predicting the relationship between food production and population growth in contemporary society.	1 point
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Accept one of the following:

- E1. Population growth has not outpaced food production, and/or populations have not run out of food.
- E2. Malthusian theory did not consider changing social, political, and/or economic factors that decrease fertility.
- E3. Improvements in agricultural technology (e.g., mechanization, Green Revolution) increased food production at a rate that outpaced population growth.
- E4. Advances in transportation have improved the global distribution of food.
- E5. The challenges of feeding the world's population have led to the opening of new agricultural lands or the development of new technologies that overcome the constraints of the environment and/or produce more food.
- E6. Farmers learned to farm more intensively with new agricultural practices and/or technologies to increase yields, increase carrying capacity, or increase the amount of cultivated land.
- E7. Growing populations have more resources to problem-solve and/or develop new methods of increasing food supplies.
- E8. Growing populations can move to areas with food surpluses or move away from areas of food insecurity.

(F)	Explain how surplus food production has changed the global market for local agricultural products.	1 point
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Accept one of the following:

- F1. Consumption patterns, changed diets, and/or increased popularity of certain foods (e.g., local foods, seasonal crops, specialty crops) have expanded the global sales of these foods.
 - F2. Surplus food drives global prices down, resulting in less expensive items, higher sales or exports, and/or increased competition with other goods.
 - F3. Increasing global sales of popular crops can increase local farm profitability, increase local investment, and increase or decrease the number or type of local products for sale (e.g., value-added products, value-added specialty crops).
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