

2024



AP[®] Human Geography

Scoring Guidelines

Set 1

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).

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

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.

(D) Explain a likely negative economic outcome of Green Revolution agricultural practices on rural communities. 1 point

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

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

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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- (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.)** **1 point**

Statement of a moderate or high degree

AND

Supported by one of the following:

- G1. Food production increased due to high-yield seeds, chemical fertilizers, pesticides, irrigation, and/or mechanization.
- G2. Crop surpluses reduced food prices, making food items more accessible and/or more affordable.
- G3. More agricultural land came under cultivation, increasing food production.

OR

Statement of a moderate or low degree

AND

Supported by one of the following:

- G4. Green Revolution inputs (e.g., fertilizers, pesticides, high-yield seeds, irrigation, mechanization) were too expensive for many farmers, resulting in fewer farms and/or lower agricultural yields.
- G5. Irrigation systems led to the salinization of the soil, reducing food production.
- G6. The inputs (e.g., chemicals, fossil fuels) and/or land management techniques resulted in environmental degradation and/or abandonment of productive land, decreasing food production.

Total for question 1: 7 points

Question 2: One Stimulus**7 points**

(A) Identify ONE neighborhood labeled on the map where two or more Asian ethnic groups reside. 1 point

Accept one of the following:

- A1. Walnut, Cerritos, Chinatown, or Koreatown

(B) Describe the spatial pattern of Chinese ethnic neighborhoods labeled on the map. 1 point

Accept one of the following:

- B1. The neighborhoods are clustered inland and/or away from the coast.
- B2. The neighborhoods are clustered in the eastern or northeastern portion.
- B3. The neighborhoods are in areas east of the Los Angeles central business district (CBD).
- B4. The neighborhoods are aligned along an east-west axis.

(C) Explain ONE way immigrants may choose to assimilate into their new place of residence. 1 point

Accept one of the following:

- C1. Immigrants may adopt culture traits (e.g., language, food, clothing, religion, music, sport) of the majority population group.
 - C2. Immigrants may change, hide, and/or abandon aspects of their own culture (e.g., language, food, clothing, religion, music, sport).
 - C3. Immigrants may achieve entry into social and economic networks (e.g., schools, workplaces, business associations, attaining citizenship).
 - C4. Immigrants may settle in non-ethnic neighborhoods rather than in ethnic neighborhoods and/or ethnic enclaves.
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(D) Explain ONE way immigrants may preserve their ethnic traditions in their new place of residence. 1 point

Accept one of the following:

- D1. By engaging in placemaking using aspects of their traditional culture (e.g., architecture, toponyms, signage) to establish a sense of place.
- D2. By continuing to celebrate and/or practice their ethnic traditions (e.g., traditional holidays, ethnic or traditional food, native languages, traditional clothing).
- D3. By creating or engaging with local institutions that promote their culture (e.g., schools, arts centers, religious groups, language learning centers, business associations, markets, organizations).
- D4. By seeking legal or other formal recognition and/or adoption of their traditions by the majority population (e.g., language taught in schools, bilingual social services, recognition of holidays).
- D5. By encouraging social relationships and/or connecting with those who share the same ethnic traditions in different places (e.g., ethnic neighborhoods, enclaves, on social media, country of origin).

(E) Describe ONE way that ethnic neighborhoods may contribute to a sense of place in large metropolitan areas such as Los Angeles. 1 point

Accept one of the following:

- E1. Ethnic neighborhoods exhibit names (e.g., toponyms), signs, sounds (e.g., language, music), symbols (e.g., religious, cultural, political), art, architecture, and/or foods typical of that ethnicity.
 - E2. Ethnic neighborhoods create a distinct cultural landscape that is different from surrounding areas.
 - E3. Ethnic neighborhoods often contain distinctive cultural institutions (e.g., places of worship), traditions, celebrations, retail shopping, and/or restaurants.
 - E4. People may form perceptions, mental maps, or emotional attachments to ethnic neighborhoods based on the distinct culture traits or cultural events in that area.
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(F) Explain how the process of redistricting may be used to decrease an ethnic community's political power. 1 point

Accept one of the following:

- F1. Redistricting or gerrymandering may negatively affect ethnic groups if the districts are redrawn to minimize the number of ethnic group voters in that area.
- F2. Redistricting or gerrymandering may be used to reduce the representation and/or the political power of that community by dividing (e.g., cracking) an ethnic area into two or more voting districts.
- F3. Redistricting or gerrymandering may be used to limit the representation and/or political power of those ethnic groups and/or allow a greater number of surrounding districts the chance to be won by the party in power by combining (e.g., packing, stacking) two or more ethnic areas into one voting district.
- F4. Redistricting or gerrymandering could result in a candidate from the ethnic community being geographically eliminated from running in that district, reducing the community's representation.
- F5. Redistricting or gerrymandering may intentionally decrease voting access or participation because of the changing boundaries of the districts.

(G) Explain how the process of redistricting may be used to increase an ethnic community's political power. 1 point

Accept one of the following:

- G1. Redistricting or gerrymandering may be used to empower ethnic groups if the districts are redrawn to maximize the number of ethnic group voters in that area.
- G2. Redistricting or gerrymandering may be used to increase the ethnic group's representation and/or political power by dividing (e.g., cracking) a non-ethnic group majority area into two or more voting districts.
- G3. Redistricting or gerrymandering may be used to limit representation and/or political power of the non-ethnic majority by combining (e.g., packing, stacking) two or more majority group areas into one district.
- G4. Redistricting or gerrymandering may be used to increase ethnic communities' political power by creating and/or recognizing majority-minority districts.
- G5. Redistricting or gerrymandering may be used to better represent ethnic communities' interests and/or increase voter participation by aligning district boundaries with ethnic areas.

Total for question 2: 7 points

Question 3: Two Stimuli**7 points**

(A) Identify ONE city on the map that is both a metacity and a world city.**1 point**

Accept one of the following:

- A1. Beijing, Shanghai, or Tokyo

(B) Describe the spatial pattern of world cities shown on the map.**1 point**

Accept one of the following:

- B1. World cities are located in North America, Europe, and/or Asia.
- B2. Most world cities are located in the Northern Hemisphere or the Eastern Hemisphere.
- B3. Many world cities are located on or near a coastline.
- B4. World cities are most densely clustered in Europe.
- B5. World cities are located in more economically developed areas.
- B6. There are no world cities in Africa, South America, northern Asia, and/or Australia.

(C) Compare the concept of a metacity with the concept of a world city. (Response must include both concepts in the comparison.)**1 point**

Accept one of the following:

- C1. Metacities are determined by population size (over 20 million people), whereas world cities are determined by their importance (e.g., economic, cultural).
 - C2. Most metacities are located in less developed countries, whereas most world cities are located in more developed countries.
 - C3. Metacities have attained their status through rapid rural-to-urban migration and/or rapid urban growth, whereas world cities have attained status through their position as major centers in the global economy.
 - C4. World cities function at the top of the world's urban hierarchy and/or drive globalization, whereas metacities primarily have national economic and/or cultural importance.
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(D) Explain ONE reason why the cities shown on the table have higher city GDP per capita than the country GDP per capita. 1 point

Accept one of the following:

- D1. These cities are more economically productive than other parts of the country because they offer greater opportunities and/or more goods or services.
- D2. These cities function as centers of the service economy (e.g., tertiary, quaternary, quinary, technology) that generate more economic value or output.
- D3. Higher-income residents often cluster in these cities due to the services available and/or the increased variety of social opportunities (e.g., entertainment, sports, charitable organizations).
- D4. People in these cities are less likely to work in primary sector activities (e.g., agriculture, resource extraction) than people outside of cities.

(E) Explain ONE way population growth in a metacity may challenge environmental sustainability. 1 point

Accept one of the following:

- E1. By consuming natural resources (e.g., water, energy, forests) faster than they can be replaced, creating a larger ecological footprint, larger energy footprint, or larger carbon footprint.
 - E2. By generating large amounts of waste and/or pollution (e.g., air pollution, water pollution, solid waste, sanitation waste), causing environmental degradation or contamination.
 - E3. Population growth may cause local biodiversity loss, habitat loss, and/or pollution through land use change.
 - E4. By increasing carbon emissions (e.g., through energy use, vehicular use, construction) and/or contributing to climate change, affecting local, regional, and/or global ecosystems.
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(F) Explain ONE reason why migrants to metacities may have difficulty obtaining housing. 1 point

Accept one of the following:

- F1. Migrants may encounter high housing costs or may not be able to find vacancies due to high population densities.
- F2. Migrants may encounter high housing costs or may not be able to find vacancies due to a large or growing urban population.
- F3. Available land for new housing may be on the urban periphery, far from employment locations, schools, transit, and/or service centers.
- F4. Access to housing may be tightly controlled by a small number of owners or agents who set prices and/or discriminate against migrants.
- F5. Available land for new housing may be located in potentially hazardous areas, zones of disamenity, and/or inaccessible places.

(G) Using the data from the table, explain the relationship between a city’s level of economic development and the city’s percent population growth over time. 1 point

Accept one of the following:

- G1. Lower city GDP per capita (e.g., Cairo, Dhaka) corresponds with, or has an inverse relationship with, higher percentage population growth.
- G2. Higher city GDP per capita (e.g., New York City, Paris) corresponds with, or has an inverse relationship with, lower percentage population growth.
- G3. Lower city GDP per capita (e.g., Cairo, Dhaka) corresponds with a city that is in the early stages of the demographic transition model, when population growth is high.
- G4. Higher city GDP per capita (e.g., New York City, Paris) corresponds with a city that is in the later stages of the demographic transition model, when population growth is low or negative.
- G5. Cairo and/or Dhaka are metacities where higher population growth corresponds with, or has an inverse relationship with, lower city GDP per capita.
- G6. New York City and/or Paris are world cities where lower population growth corresponds with, or has an inverse relationship with, higher city GDP per capita.
- G7. For cities in the table, economic productivity may encourage population growth due to pull factors (e.g., employment opportunities, business opportunities, or investment opportunities).

Total for question 3: 7 points