

Past-paper walk-through

Challenges of Urban Sustainability ■ 6.11

eXercise

Questions in this set

- 2025 Set 2 Q1
- 2024 Set 1 Q3

Reading the mark scheme

- **B1** a mark that stands on its own – the point is either made or not.
- **M1** a *method* mark: the right approach, even if the number is wrong.
- **A1** an *answer* mark, and it usually needs its M mark first.
- **C1** a working mark on the way to the answer.
- **//** separates answers the examiner accepts equally.
- **ecf** = error carried forward: a later part is marked on your own earlier answer.
- **owtte** = “or words to that effect” – the wording need not match.

Question 1

2025 Set 2 ■ Q1

Migration contributes to significant population growth and change in urban landscapes. As populations increase, urban areas face economic, social, and environmental challenges.

- (a) Describe one type of voluntary migration.
 - (b) Explain how migration may affect a city's economy.
 - (c) Describe one type of housing discrimination that may occur in urban areas.
 - (d) Explain how a city's infrastructure affects society.
 - (e) Describe one challenge to sustainability in urban areas.
 - (f) Explain how urban design initiatives are intended to affect cities.
 - (g) Explain why urban design initiatives may be criticized.
- 4 Food Exports Between Country X and Country Y

Solution 1

(a) Mark scheme

- - Transnational (external) migration is the movement of people across international borders to another country.
- - Transhumance is a seasonal or cyclical movement of people and livestock along traditional migratory routes, trade routes, and/or pathways between different climate or ecological zones.
- - Internal migration is the movement of people within the borders of their home country.
- - Chain migration is the movement of people who have followed other people (e.g., family members) to a particular location.

Solution 1

- - Step migration is the movement of people along a set or series of intermediate stops or stages toward a final destination.
- - Rural-to-urban migration and/or the movement of pastoral, country, farming, agrarian, mining, fishing, and/or forest peoples to cities or metropolitan areas.
- - Labor migration is the movement of people for the purpose of work, wages, education opportunities, employment opportunities (e.g., guest workers), and/or technological skills (e.g., brain drain).
- - Family migration is the movement of people to connect or reunify family members who have been separated.

Solution 1

(b) Mark scheme

- - Migrants may contribute to economic development by expanding the size, capabilities, and/or productivity of a city's labor force.
- - Migrants may start new businesses, expand existing businesses, and/or invest in existing businesses, resulting in local economic development, growth, and/or multiplier effects.
- - Migrants may increase a city's tax base (e.g., sales, income, property taxes) used to fund governments, resulting in additional funds for infrastructure (e.g., transportation, sanitation) and/or social programs (e.g., education, health care).

Solution 1

- - Migrants may purchase, rent, or invest in housing or commercial space, resulting in a more valuable real estate market.
- - Migrants may contribute to the ethnic or cultural makeup of the city, resulting in a more diverse workforce, improved availability of goods or services, or ethnic neighborhoods that develop new business (e.g., food, tourism).
- - Migrants moving away from a city may reduce the size and capabilities of that city's economy, reduce the size of its labor force, decrease the local tax base, and/or decrease local investment in business, housing, or real estate.
- - Governments may allocate funding to services for migrants (e.g., health care, education).

Solution 1

(c) Mark scheme

- - Redlining is a discriminatory practice in which providers (e.g., lenders, insurers) deny services or impose unfair terms on people in specific neighborhoods.
- - Blockbusting is a discriminatory housing practice in which realtors persuade homeowners to sell their homes cheaply because people of a specific race or ethnicity of people are moving to the neighborhood.
- - Urban areas may lack affordable housing, leaving lower-income residents with limited housing options and/or potentially leading to de facto segregation (e.g., zoning rules, regional planning initiatives, urban design initiatives).

Solution 1

(d) Mark scheme

- - Patterns of social development and/or societies are affected by a city's infrastructure (e.g., transportation, communications, energy, housing, industry) because the location and/or quality of infrastructure influence quality of life (e.g., access to health care, levels of education, quality of life, standards of living).
- - High-quality city infrastructure (e.g., housing, transportation, communications, schools, commercial buildings) may improve residents' quality of life by improving access to goods, services, and/or places of employment.
- - High-quality city infrastructure (e.g., public utilities, health care) may improve residents' quality of life by improving public health and sanitation.

Solution 1

- - Insufficient city infrastructure may inhibit social development by creating challenges such as lack of housing, lack of public utilities, pollution, and/or inadequate sanitation.

Solution 1

(e) Mark scheme

- - Expanding areas of suburban sprawl, insufficient sanitation systems, climate change causing local environmental effects, pollution affecting air and/or water, the large ecological footprint of cities, and/or inefficient energy use.
- - Any environmental and/or economic condition that may limit the long-term or continuous use of a resource or type of land use.
- - Rapid urbanization can increase the demand for resources (e.g., water, food, energy), strain infrastructure, reduce green spaces, lead to housing shortages, and/or proliferate informal settlements.

Solution 1

- - Public health challenges (e.g., sanitation, the availability of clean water) can challenge urban sustainability.
- - Aging or inadequate infrastructure can challenge urban sustainability.
- - Ineffective urban governance or planning may challenge urban sustainability.

Solution 1

(f) Mark scheme

- - The initiatives (e.g., zoning practices, mixed land use, walkability, transportation-oriented development, smart-growth policies, New Urbanism) are intended to reduce sprawl, improve walkability, accessibility, and/or transportation.
- - The initiatives are intended to improve or diversify housing options, improve livability, and/or promote sustainable options (e.g., land or resource use, combined living and workspace).
- - Socially, urban design initiatives are intended to improve public spaces (e.g., create parks, plazas, recreational areas), boost inclusivity (e.g., ensure accessibility), and/or enhance public health (e.g., reduce pollution) in cities.

Solution 1

- - Environmentally, implementing green building materials, renewable energy sources, and/or urban greenery can minimize environmental impact in cities.
- - Economically, by improving infrastructure (e.g., transportation, housing, public services, open space), urban planning, and/or zoning, cities can attract investment, create jobs, foster sustainable communities, and/or improve accessibility or mobility.
- - Culturally, urban design initiatives can incorporate the preservation of historical sites or cultural landmarks, design spaces for public art, cultural events, and/or community gatherings, fostering a sense of place, identity, and/or community.

Solution 1

(g) Mark scheme

- - Criticism might arise because initiatives may negatively affect the local population through increased housing costs (e.g., the cost of new construction, land speculation) and/or by resulting in possible de facto segregation (e.g., limited low-income housing options).
- - Urban design initiatives may reduce or eliminate land that could be used for housing development and/or for the development of institutions (e.g., schools, health care) or amenities (e.g., parks, play areas).
- - Urban design initiatives may attract outside visitors or vehicles that increase traffic or congestion or increase the cost of goods and services in the local area.

Solution 1

- - Urban design initiatives could be expensive to implement and/or could cost the city money that could be used in other ways.
- - Urban design initiatives may result in the potential loss of historical or place character.
- - Urban design initiatives may be seen as ineffective due to cost, lack of impact on the local economy, and/or lack of improvement in quality of life.

Question 3

2024 Set 1 ■ Q3

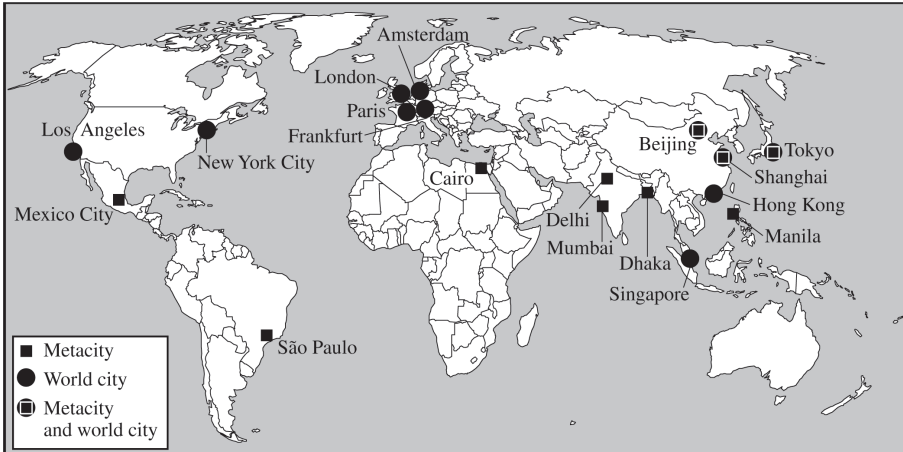
The world cities and metacities shown on the map are features of contemporary globalization and urbanization. The data table shows gross domestic product (GDP) per capita at the city and country scale.

- (a)** Identify ONE city on the map that is both a metacity and a world city.
- (b)** Describe the spatial pattern of world cities shown on the map.
- (c)** Compare the concept of a metacity with the concept of a world city. (Response must include both concepts in the comparison.)
- (d)** Explain ONE reason why the cities shown on the table have higher city GDP per capita than the country GDP per capita.
- (e)** Explain ONE way population growth in a metacity may challenge environmental sustainability.

Question 3

- (f) Explain ONE reason why migrants to metacities may have difficulty obtaining housing.
- (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. and fill in the appropriate circle at the top of each page to indicate the question number.

Question 3



Solution 3

(a)

Mark scheme

- - Beijing, Shanghai, or Tokyo

Solution 3

(b)

Mark scheme

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

Solution 3

(c) Mark scheme

- - Metacities are determined by population size (over 20 million people), whereas world cities are determined by their importance (e.g., economic, cultural).
- - Most metacities are located in less developed countries, whereas most world cities are located in more developed countries.
- - 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.

Solution 3

- - 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.

Solution 3

(d) Mark scheme

- - These cities are more economically productive than other parts of the country because they offer greater opportunities and/or more goods or services.
- - These cities function as centers of the service economy (e.g., tertiary, quaternary, quinary, technology) that generate more economic value or output.
- - 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).
- - People in these cities are less likely to work in primary sector activities (e.g., agriculture, resource extraction) than people outside of cities.

Solution 3

(e) Mark scheme

- - 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.
- - By generating large amounts of waste and/or pollution (e.g., air pollution, water pollution, solid waste, sanitation waste), causing environmental degradation or contamination.
- - Population growth may cause local biodiversity loss, habitat loss, and/or pollution through land use change.

Solution 3

- - 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.

Solution 3

(f) Mark scheme

- - Migrants may encounter high housing costs or may not be able to find vacancies due to high population densities.
- - Migrants may encounter high housing costs or may not be able to find vacancies due to a large or growing urban population.
- - Available land for new housing may be on the urban periphery, far from employment locations, schools, transit, and/or service centers.
- - Access to housing may be tightly controlled by a small number of owners or agents who set prices and/or discriminate against migrants.

Solution 3

- - Available land for new housing may be located in potentially hazardous areas, zones of disamenity, and/or inaccessible places.

Solution 3

(g) Mark scheme

- - Lower city GDP per capita (e.g., Cairo, Dhaka) corresponds with, or has an inverse relationship with, higher percentage population growth.
- - Higher city GDP per capita (e.g., New York City, Paris) corresponds with, or has an inverse relationship with, lower percentage population growth.
- - 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.

Solution 3

- - 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.
- - Cairo and/or Dhaka are metacities where higher population growth corresponds with, or has an inverse relationship with, lower city GDP per capita.
- - 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.
- - For cities in the table, economic productivity may encourage population growth due to pull factors (e.g., employment opportunities, business opportunities, or investment opportunities).