The Ultimate AP® Human Geography Unit 6 Cheat Sheet

6.1 Origin & Influences of Urbanization

Site vs. Situation

Site: a city's physical traits (water, defensible hill, harbor, flat land, resources) → why it was founded there.
Situation: location relative to other places (trade routes, rivers, rail hubs) → why it grows or declines.

City	Site	Situation
Singapore	island harbor	Malacca Strait trade
Chicago	lake + river	rail & water hub
Paris	Seine island	center of France
Istanbul	Bosporus hills	Europe–Asia link

Why Cities Grow

First cities (~3500 BCE): ag. surplus → specialization; hearths in Mesopotamia, Nile, Indus, Huang He, Mesoamerica & the Andes (Caral, Peru).
Industrialization: factories → rural-to-urban migration; today fastest urban growth in Sub-Saharan Africa & S. Asia.
Pull factors: jobs, schools, health care, services; **push**: rural poverty, land loss, conflict, ag. mechanization.

Transportation & Communication

Walking city → streetcar suburbs → auto suburbs: each new transport tech let cities spread farther from the core.
Interstate highways (1956 act) + cheap mortgages (FHA, GI Bill) → mass **suburbanization** & white flight in US.
Sprawl: low-density, car-dependent growth at the edge; **decentralization** = jobs & shops leave the CBD too.
Communication tech: internet & remote work let firms & workers spread out; telecom hubs still cluster in big cities.

⚠ Site = physical, fixed; situation = relative, changes over time (a new canal or rail line can shift it).

✓ FRQ: explain growth w/ BOTH site & situation, then add a transport change that reshaped the city.

6.2–6.3 Cities Across the World & Globalization

Big & Growing Cities

Megacity: metro area >10M people (Lagos, Mumbai, São Paulo); **metacity**: >20M (Tokyo, Delhi, Shanghai).
Where growth is: most new megacities are in the periphery & semi-periphery, fueled by migration & natural increase.
Urbanization rate: >55% of humans live in cities; core ~80%; many African states <50% but rising fast.
Fastest-growing: Kinshasa, Lagos & Dhaka add hundreds of thousands a year; slums absorb much of it.

Edges of the City

Term	Meaning	Example
Suburb	residential ring	Levittown, NY
Edge city	office/retail node	Tysons, VA
Boomburb	fast-growing suburb	Mesa, AZ
Exurb	rural-feel commuter	Loudoun Co., VA

Edge city (Garreau): office parks & malls at highway interchanges, more jobs than bedrooms, outside the old core.
Exurb growth: remote work & cheap land pull commuters beyond suburbs → longer drives, lost farmland.
Global suburbs: in many developing cities the rich move to gated suburbs while new migrants crowd the outer edges.

World Cities

World cities: command centers of the global economy; host TNC HQs, stock exchanges, banks & media.
Hierarchy: alpha (New York, London) → Tokyo, Paris, Singapore → regional hubs (Mumbai, São Paulo).
Networks: world cities link via flows of capital, info, people & flights, often more than to their own hinterland.
Uneven: global cities draw elite workers & low-wage service workers → sharp income polarization inside them.

⚠ Megacity = size; world city = global influence. Lagos is a megacity, but not a top-tier world city like London.

✓ Name the scale: a world city's influence is global, a regional hub's is continental (Johannesburg).

6.4 Size & Distribution of Cities

Rank-Size vs. Primate

Rank-size rule: nth-largest city = 1/n the pop. of the largest (2nd = ½, 3rd = ⅓) → balanced urban hierarchy (US, Germany); common in big, developed states.
Primate city: largest city >2× the next & dominates economy, politics & culture (Mexico City, Bangkok, Lima, Paris).
Why primacy: colonial capitals, centralized gov't, 1 main port; often in developing countries → uneven development.

Gravity Model

Gravity model: interaction ∝ $(Pop_1 \times Pop_2) \div distance^2$ → big, close cities trade & migrate most; used to site stores.
Gravity & migration: explains why most migrants move short distances to big cities (Ravenstein, Unit 2).

Central Place Theory (Christaller)

Central places: settlements that serve surrounding market areas; hexagons tile space w/o gaps or overlap.

Term	Meaning
Threshold	min. customers to stay open
Range	max. distance people travel
Low-order good	frequent, cheap (gas, milk)
High-order good	rare, costly (surgeon, Rolex)
Hierarchy	few big places, many small

Pattern: many small towns w/ low-order goods, fewer large cities w/ high-order goods; big places offer both.
Assumptions: flat land, even pop., equal transport in all directions, shoppers go to nearest place.
Real world: S. Germany & Iowa farm towns fit best; highways & online shopping stretch the range of goods.

⚠ Threshold = how many customers; range = how far they'll travel. Don't flip them on MCQs.

✓ Graph stimulus: a steep drop from city #1 to #2 = primate city; a smooth curve = rank-size; check the y-axis scale.

6.5 Internal Structure: Classic Models

Bid-Rent Theory

Bid-rent: land value peaks at the CBD (most accessible) & falls outward → commercial > residential > ag. by distance.
Result: tall, dense buildings downtown (skyscrapers), lower density & bigger lots farther out (suburban yards).
Who outbids whom: retail & offices pay most for access; housing next; farms can only afford cheap land at the edge.

US Models

Model	Shape	Key idea
Burgess (1925)	concentric rings	growth outward
Hoyt (1939)	wedges/sectors	along transport
Harris-Ullman	multiple nuclei	several nodes
Galactic	beltway + edges	suburb downtowns

Concentric zone (Chicago): CBD → zone in transition → working-class → middle-class → commuter zone.
Zone in transition: mix of industry & aging rental housing; 1st stop for new immigrants in Burgess's Chicago.
Sector model: high-rent sector follows a scenic or transport corridor; industry & low-income sectors along rail.
Multiple nuclei (1945): car city w/ several centers (airport, university, industrial park); like uses cluster.
Galactic / peripheral: a beltway rings the city; edge cities & suburbs function as their own downtowns.

Using the Models

Strengths: show filtering & invasion-succession; **limits**: built from 1 US city, ignore cars, gov't & culture.
Filtering: as the rich move out, older homes pass to lower-income groups & are often subdivided.
Invasion & succession: a new group moves into an area & replaces the old one (immigrant waves).

⚠ Models are generalizations; real cities mix them. Say which parts of a model fit a given map.

✓ FRQ: name the model, describe 1 zone, explain WHY it formed (bid-rent, transport, filtering).

6.5 Internal Structure: Regional Models

Latin American (Griffin-Ford)

Spine: elite commercial & residential sector extends from the CBD along a grand boulevard w/ the best services & malls.
Zones: zone of maturity (good services) → in situ accretion (mixed, improving) → periférico squatter ring.
Disamenity sector: poorest, least-served land (steep slopes, dumps, floodplains); favelas in Rio de Janeiro.
Squatter settlements: self-built homes on land residents don't own; many upgrade over time (in situ accretion).

Sub-Saharan African (de Blij)

3 CBDs: colonial CBD, traditional market zone & informal market; ethnic & mixed neighborhoods ring them.
Outer ring: informal satellite townships & squatter settlements; mining or manufacturing zone nearby.

Southeast Asian (McGee)

Port zone is the focus (no formal CBD); Western commercial & alien (Chinese) commercial zones nearby.
Outer zones: gov't zone, mixed land use, new suburbs, industrial estates, market gardening at edge.
Desakota: Jakarta & Bangkok sprawl along ports & roads into mixed urban-rural zones (McGee's term).

Model	Core	Poorest area
Latin Am.	CBD + spine	periphery
African	3 CBDs	outer townships
SE Asian	port zone	squatter areas
US (Burgess)	CBD	inner city

Colonial legacy: European planners built wide boulevards & segregated districts that still shape these cities.

⚠ In Latin American cities the rich live near the center & the poor at the edge: opposite of Burgess.

✓ Compare: give 1 similarity & 1 difference between a US & non-US model, w/ a real city (Rio vs. Chicago).

6.6–6.7 Density, Land Use & Infrastructure

Residential Density

Density	Housing	Where
Low	single-family	suburbs, exurbs
Medium	townhouses, duplex	inner suburbs
High	apartments, condos	near CBD

Density & cost: high land value near the core → small units, tall buildings; cheap land at edge → big lots.
Zoning: laws set land use (residential, commercial, industrial); single-use zoning ↑ sprawl & car trips.
Mixed-use: shops below, homes above → walkable, ↑ density; **infill** = building on empty lots inside the city.
Upzoning: allowing apartments & ADUs in single-family areas adds homes; neighbors often resist (NIMBY).

Infrastructure

Infrastructure: roads, transit, water, sewers, power, internet; its location & quality steer where growth occurs.
Economic link: firms locate where infrastructure is good → jobs ↑; weak infrastructure deters investment.
Informal settlements often lack piped water, sewers & legal power → disease & fire risk (Dharavi, Mumbai).
Transit-oriented development: dense housing & jobs around rail stations → less car use (Arlington, VA).
Digital infrastructure: broadband & smart-city sensors manage traffic & energy (Singapore, Barcelona).

Who Pays?

Gov't roles: cities, states & nations fund & plan infrastructure; public-private partnerships share cost.
Decline: aging pipes & roads strain shrinking tax bases (Flint, MI water crisis, 2014: lead pipes poisoned water).

⚠ Density ≠ crowding: Paris is dense & wealthy; density is people per area, not a measure of poverty.

✓ Explain how 1 infrastructure change (new rail line, highway) shifted land use or density.

6.9–6.10 Urban Data & Challenges of Change

Urban Data

Quantitative: census tracts, income, race, housing, commute data; **qualitative**: interviews, field notes, photos.
Uses: map change over time (gentrification), show segregation, plan transit & services; GIS layers data.
Limits of data: undercounts of homeless & undocumented people; tract boundaries & scale can change the story.

Housing Discrimination & Decline

Process	What happened
Redlining	banks deny loans in Black areas
Blockbusting	fear sales → white flight
Filtering	homes pass to lower-income
Urban renewal	slums razed, people displaced
Gentrification	↑ income moves in, rents ↑

Redlining (HOLC maps, 1930s): marked minority areas "hazardous" → disinvestment that still shows in wealth gaps.
Gentrification: + renovation, ↑ tax base; – rising rents displace long-time, often minority residents.
Highways & renewal (1950s–70s) cut through Black neighborhoods (I-94 split Rondo in St. Paul, MN).

Other Challenges

Squatter settlements & the **informal sector**: unregulated housing & jobs w/o legal title or benefits.
Disamenity zones & **environmental justice**: poor & minority areas get highways, factories & waste sites.
Responses: inclusionary zoning, rent control, land-tenure titles, community land trusts, slum upgrading.
Shrinking cities: deindustrialization → pop. loss, vacant lots, falling tax base (Detroit); some lots become urban farms.

⚠ Gentrification has winners & losers; FRQs want both a benefit & a cost, w/ a real neighborhood (Harlem, NYC).

✓ Census-tract map stimulus: describe the pattern, then explain a cause (redlining, filtering, highway building).

6.8 & 6.11 Sustainability + the Exam

Problems of Sprawl

Sprawl effects: farmland & habitat loss, car dependence, traffic, air pollution, costly infrastructure.
Environmental issues: urban heat island, runoff, sanitation gaps, poor air & water, high energy use.
Brownfields: polluted ex-industrial sites; cleanup (remediation) → redevelopment as housing & parks.
Ecological footprint: land & resources needed to supply a city's consumption & absorb its waste.
Climate risk: coastal megacities face flooding (Jakarta is sinking); green roofs & sea walls help adapt.

Smart-Growth Responses

Policy	Example
Urban growth boundary	Portland, OR
Greenbelt	London
New urbanism	Seaside, FL
Transit & bike lanes	Curitiba, Brazil

Effects: + less sprawl, walkable, less driving; – higher housing costs inside boundaries, displacement.
Slow growth: cap permits, buy development rights, protect farmland; **regional planning** links suburbs (Portland).

Exam Format

Section	Qs	Time	Weight
MCQ	60	60 min	50%
FRQ	3	75 min	50%

FRQs: 1 w/ no stimulus, 1 w/ 1 stimulus, 1 w/ 2 (maps, models, data); 7 pts each. Unit 6 = 12–17% of MCQs.

⚠ "Explain" needs a cause-effect link; naming a model or term alone earns no points on FRQs.

✓ Always name a real city & the scale; tie each policy to a benefit AND a drawback for residents.