The Ultimate AP® Human Geography Unit 7 Cheat Sheet

7.1 The Industrial Revolution

Why Britain, Why 1750s

Resources: coal & iron ore close together, rivers & canals for power & transport, wool & colonial cotton.
Labor & capital: 2nd Ag. Rev. freed farm workers; colonial trade & banks supplied money to invest.
Inventions: Watt's steam engine (1769), spinning jenny, power loom, iron smelting w/ coke → factory system.
Cottage industry → factories: home spinning & weaving gave way to mills near water power, then coal-fired steam.

Diffusion

When	Where	Driver
1750–1800	Britain	textiles, coal
1800s	Belgium, France	coal fields
mid-1800s	Germany, US NE	rail, steel
late 1800s	Japan, Russia	state-led
1900s →	E. Asia, Latin Am.	cheap labor

Hierarchical diffusion: spread 1st to coal regions & capitals, then to colonies only as raw-material suppliers.

Effects

Raw-material demand → colonialism & imperialism; colonies grew cotton, rubber, minerals for core factories.
Urbanization: rural-to-urban migration → crowded factory cities (Manchester), slums, disease, pollution.
Environment: coal smoke & river dumping → smog & disease; London's 1952 Great Smog killed ~4,000+ people.
Society: child labor, long hours → labor unions & reforms; new middle class grew; DTM stage 2 → 3.
2nd Industrial Revolution (late 1800s): steel, electricity, chemicals, oil → assembly lines (Fordism).

⚠ Industrialization didn't diffuse evenly; colonies were kept as resource suppliers, not factory sites.

✓ FRQ chain: Industrial Rev. → demand for raw materials → colonialism → today's core-periphery gap.

7.2 Economic Sectors & Patterns

The Sectors

Sector	Activity	Example
Primary	extract resources	farming, mining
Secondary	manufacture	steel, autos
Tertiary	services	retail, transport
Quaternary	info & knowledge	research, finance
Quinary	top decisions	CEOs, officials

Sector shift: as countries develop, jobs move primary → secondary → tertiary/quaternary (US: <2% in farming).
Today: periphery still heavy in primary jobs (Chad ~75% farming); core is 70–80% tertiary & quaternary.

Where Industry Locates (Weber)

Least-cost theory (Weber, 1909): firms locate to minimize transport, labor & agglomeration costs.
Bulk-reducing: product weighs less than inputs (copper smelting, lumber) → locate near raw materials.
Bulk-gaining: product weighs more than inputs (soft drinks, beer, cars) → locate near the market they serve.
Labor: firms move to cheaper labor if savings beat extra transport cost (garment factories in Bangladesh).
Agglomeration: clustering cuts costs via shared suppliers, skilled labor & ideas (Detroit autos, Silicon Valley).
Deglomeration: too much clustering → high rents, traffic & wages push firms out to cheaper places.

Other Location Factors

Break-of-bulk point: where goods switch transport modes (ports, rail yards) → processing hubs (Rotterdam).
Site & situation factors: land, energy, capital, gov't incentives, access to markets & suppliers.

⚠ Weber assumes fixed resources & 1 market; modern cheap shipping & tech weaken transport as a factor.

✓ Classify a job by its main activity: a mining engineer doing research = quaternary, not primary.

7.3 Measures of Development

Economic Measures

GDP: value of goods & services produced inside a country in a year; **GNP/GNI**: by its citizens & firms anywhere.
Per capita & PPP: divide by pop. & adjust for local prices → fairer comparisons between countries.
Sectoral structure: % of workers in each sector; high primary % → less developed, high tertiary % → more.
Gini coefficient: income inequality, 0 = equal, 1 = one person has all (S. Africa ≈ 0.63, Sweden ≈ 0.29).
Informal economy: untaxed, unregulated work (street vendors) → missing from GDP; large in periphery.
Why per capita matters: India's GDP is huge, but its GDP per capita is far below Germany's (≈ 1/20).

Social Measures

Measure	Developed	Developing
Infant mortality	low (<5/1,000)	high (50+)
Fertility rate	≤ 2	4+
Literacy rate	~99%	lower
Life expectancy	80+	60s

Composite Indexes

HDI (UN): life expectancy + education (mean & expected years of school) + GNI per capita (PPP); 0–1 scale.
Gender Inequality Index (GII): reproductive health, empowerment (seats, education) & labor force; 0 = equal.
Why composite: GDP misses health, schooling & inequality (rich Gulf states score worse on GII than GDP implies).
Other indicators: access to clean water, doctors per 1,000, internet use, calories per day, energy use.
Uneven within countries: national averages hide gaps (coastal vs. interior China; N. vs. S. Italy).

⚠ GII: LOWER = more equal. HDI: HIGHER = more developed. Don't flip them on a map stimulus.

✓ FRQ: name a measure, explain what it shows & 1 limitation (GDP ignores inequality & informal work).

7.4 Women & Economic Development

Changing Roles

Development shifts roles: more girls' education & paid jobs → later marriage, lower fertility, more income.
Labor force: women's share of paid work ↑ worldwide, but many still work informally or do unpaid farm & care work.
Export factories: maquiladoras & garment plants hire many young women → income but low wages & poor safety.
Fertility link: more schooling & jobs for women → fewer, later births → DTM stage 3–4 (Bangladesh TFR ~2).

Persistent Gaps

Gap	Example
Wage gap	US women earn ~84¢ per $1
Double day	paid job + most housework
Glass ceiling	few women CEOs
Legal limits	land & inheritance rights
Politics	~27% of parliament seats

Regional variation: gaps largest in S. Asia, Middle East & N. Africa; smallest in Nordic states (Iceland).

Tools for Change

Microfinance: small loans to start businesses, mostly to women (Grameen Bank, Muhammad Yunus, Nobel 2006).
Microfinance limits: high interest & debt traps; loans can't fix weak markets or legal barriers on their own.
Education & policy: schooling for girls, quotas (Rwanda's parliament >60% women), paid leave laws.
Why it matters: women's income goes heavily to children's food & school → wider development gains.

⚠ More women in the workforce ≠ equality; check wage, legal & political gaps too, w/ data from a real country.

✓ Link GII to development: lower GII → lower fertility & higher HDI; name a country as evidence.

7.5 Theories of Development

Rostow's Stages (1960)

Stage	Key feature
1. Traditional	subsistence farming
2. Preconditions	infrastructure, trade
3. Take-off	few industries boom
4. Drive to maturity	diverse industry, tech
5. High mass consump.	services, consumer goods

Rostow's view: every country can follow the same linear path by investing, trading & modernizing (capitalist model).
Critiques: Eurocentric; ignores colonial history & that core countries already took the best markets.
Example: S. Korea's 1960s–90s rise fits Rostow's take-off; many African states stalled at preconditions.

Wallerstein's World-System Theory

Core: high wages, high tech, quaternary jobs (US, Germany, Japan); controls capital, trade & global media.
Semi-periphery: mix of core & periphery traits; both exploited & exploiter (China, Brazil, Mexico, India).
Periphery: low wages, raw-material exports, weak states (Chad, Haiti); wealth flows to the core.
Dynamic: countries can move between tiers (S. Korea: periphery → core) but the system stays unequal.

Dependency Theory

Dependency theory: colonial ties & unequal trade keep former colonies poor & reliant on core markets & loans.
Commodity dependence: exporting 1–2 raw goods (copper in Zambia) → exposure to world price swings.
Neocolonialism: core firms & loans keep control w/o formal colonies (mines, plantations owned abroad).

⚠ Rostow = stages any country can climb; Wallerstein = global system that keeps tiers unequal. Don't blend them.

✓ FRQ "explain a limitation": Rostow ignores colonialism; world-system can't explain each country's path.

7.6 Trade & the World Economy

Why Countries Trade

Complementarity: one place has what another needs → trade flows (Gulf oil to energy-hungry E. Asia).
Comparative advantage: specialize in what you produce at the lowest opportunity cost, trade for the rest.
Neoliberalism: free trade, privatization & less gov't regulation; drove global trade deals since the 1980s.
Trade blocs: cut tariffs among members → more trade inside the bloc; EU also allows free movement of labor.

Key Organizations

Group	Role
WTO (1995)	trade rules, settles disputes
IMF	short-term loans, stability
World Bank	development loans, projects
USMCA (2020)	replaced NAFTA (1994)
EU, Mercosur, ASEAN	regional trade blocs
OPEC	oil cartel sets output

Structural adjustment: IMF/World Bank loan terms → cut spending, privatize, open markets; critics: ↑ poverty.
Microloans vs. big loans: World Bank funds dams & roads; microfinance reaches individuals (bottom-up).

Interdependence

Global financial crisis (2008): US housing collapse spread worldwide via banks & trade → global recession.
Debt: poor countries borrow for development → repayments drain budgets (debt relief, HIPC initiative).
Protectionism: tariffs & quotas shield home industry (US–China tariffs since 2018) → higher prices, trade wars.
Gov't initiatives at every scale: tariffs, subsidies, tax breaks & trade deals shape where industry goes.

⚠ Free trade has winners & losers: cheaper goods & export jobs vs. factory closures in high-wage regions.

✓ Name the scale: WTO = global, USMCA = regional, a state tax break for a new factory = local.

7.7 Changes from the World Economy

Shifting Production

Outsourcing: hiring another company to do work (call centers); **offshoring**: moving work to another country.
Deindustrialization: factory jobs leave core regions → job loss, shrinking cities (US Rust Belt, N. England).
New international division of labor: core keeps HQs & R&D; manufacturing moves to semi-periphery.
NICs: Asian Tigers (S. Korea, Taiwan, Singapore, Hong Kong), then China, Vietnam & India rose via exports.
FDI (foreign direct investment): TNCs build plants abroad → jobs & tech transfer, but profits often leave.

Special Zones

Zone	Example	Draw
SEZ	Shenzhen (1980)	tax breaks, FDI
Maquiladora	US–Mexico border	low wages, tariffs
EPZ / FTZ	Bangladesh, Dubai	duty-free export

Zone trade-offs: + jobs, exports, infrastructure; – low wages, weak labor rights, pollution, few local links.

How Firms Produce

Fordism → post-Fordism: mass assembly lines → flexible, smaller batches, contract work & global supply chains.
Just-in-time delivery: parts arrive as needed → low inventory, but chains break easily (2021 chip shortage).
Economies of scale: big output → lower unit cost; favors large TNCs w/ factories & suppliers worldwide.
Growth poles & high-tech corridors: Silicon Valley, Research Triangle, Bangalore attract talent & investment.
Service offshoring: call centers & software in India & the Philippines b/c English skills & lower wages.

⚠ Outsourcing ≠ offshoring: outsourcing can stay in the same country; offshoring crosses borders.

✓ Effects at 2 scales: Shenzhen boomed (local gain) while Ohio factory towns shrank (core loss).

7.8 Sustainable Development + the Exam

Sustainable Development

Definition: meeting present needs w/o compromising future generations; balances economy, society & environment.
UN SDGs (2015–2030): 17 goals (end poverty, clean energy, gender equality, climate action); followed the MDGs.
Industrial costs: air & water pollution, resource depletion, climate change; e-waste shipped to Ghana & Asia.
Responses: renewable energy, ecotourism (Costa Rica), carbon pricing, recycling, green building.
Ecotourism: nature-based travel funds conservation & local jobs, but crowds can still harm ecosystems.
Green tech growth: China leads solar panel & EV output → new industrial regions & mineral demand (lithium, cobalt).
Tension: developing countries argue they need fossil fuels to grow, as the core did (UN climate talks).

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, data tables); 7 pts each. Unit 7 = 12–17% of MCQs.

Exam Moves

Data stimulus: read HDI, GII or sector data → describe the pattern → explain it w/ a development theory.
Theory match: rising factory share → Rostow take-off; raw-material exports → periphery or dependency.
Connect units: industry ties to migration (Unit 2), cities (Unit 6), agriculture (Unit 5) & politics (Unit 4).

⚠ "Explain" needs a cause-effect link & a real place; a list of terms alone earns no points on FRQs.

✓ Strong evidence: Shenzhen SEZ, Grameen Bank, Rust Belt, USMCA, Costa Rica ecotourism.