

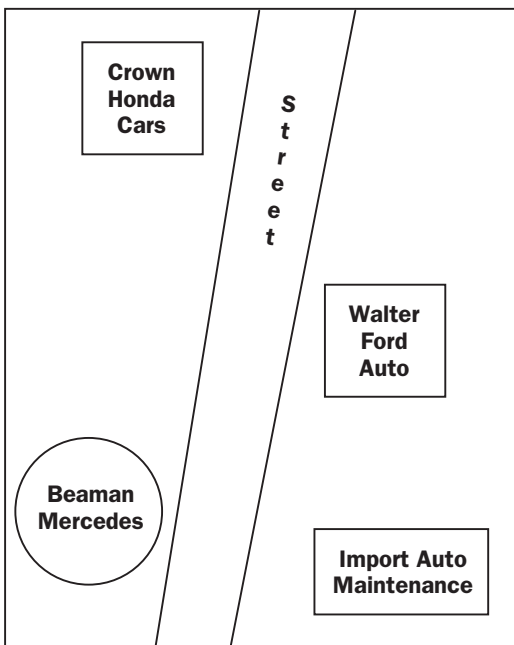
Practice Exam Section I

(Answer sheets appear in the back of the book.)

TIME: 60 minutes
75 multiple-choice questions

Directions: Each of the following questions is followed by five suggested answers or completions. Select the best answer choice.

- The diagram below most clearly illustrates the geographic process of
 - deglomeration
 - accessibility
 - scale
 - placelessness
 - agglomeration
- According to the rank-size rule, a country's fourth-largest city is what fraction of the country's largest settlement?
 - $1/2$
 - $1/4$
 - $1/8$
 - $1/12$
 - $1/16$
- Which of the following countries has a government organized in a federal structure?
 - United Kingdom
 - China
 - India
 - France
 - Czech Republic
- Which of the following religions did not originate with a founder or innovating prophet?
 - Buddhism
 - Hinduism
 - Islam
 - Taoism
 - Confucianism



5. Which of the following assumptions underlies push-pull reasoning in human migration selectivity?

(A) The only category of push-pull factors is economic.

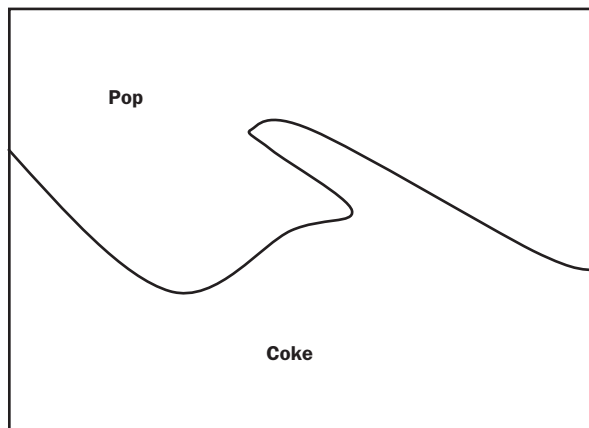
(B) Some factors in human migration decisions are beyond the total control of migrants making those decisions.

(C) Push-pull factors are universal truths that apply to all human migration decisions.

(D) Each place is equal in its original favorability to humans.

(E) Humans always migrate when forced to live in unfavorable circumstances.

Word Usage for Term Meaning “Soda”



Line indicates boundary between two terms' dominance

6. The diagram above most closely demonstrates the geographic concept of

(A) language groups

(B) ideograms

(C) pidgin language

(D) the isogloss

(E) language pollution

7. All the following are often preconditions for the construction of a federal government EXCEPT

(A) compact shape

(B) multiculturalism

(C) wide expanse of territory

(D) multicore region (or lack of core)

(E) regionalism

8. In sub-Saharan Africa,

(A) caloric intake has reached nearly adequate levels because genetically modified food crops are being shipped from foreign markets

(B) malnutrition has most affected children in urban areas

(C) the impact of the Green Revolution has been the highest, though still insufficient to mitigate malnutrition

(D) agribusiness investments have improved local agricultural economies

(E) food production has declined since 1980 and continues to drop

9. Which of the following accurately lists regions in order of decreasing levels on the Human Development Index ?

(A) Anglo-America, western Europe, eastern Europe, Southeast Asia, Middle East

(B) Anglo-America, western Europe, eastern Europe, Middle East, Southeast Asia

(C) Anglo-America, western Europe, Middle East, eastern Europe, Southeast Asia

(D) Western Europe, Anglo-America, eastern Europe, Southeast Asia, Middle East

(E) Western Europe, Anglo-America, eastern Europe, Middle East, Southeast Asia

10. Bank USA refused to approve loans to people living in a particular neighborhood of Nashville, Tennessee. This is an example of
- (A) blockbusting
 - (B) redlining
 - (C) gerrymandering
 - (D) ghettoization
 - (E) racial steering
11. Approximately how many independent states exist on the earth's surface?
- (A) 2,500
 - (B) 1,800
 - (C) 1,000
 - (D) 500
 - (E) 200
12. A pilgrim wishing to visit the hearth of Islam would most likely visit which modern-day country?
- (A) Iran
 - (B) Syria
 - (C) Israel
 - (D) Saudi Arabia
 - (E) Lebanon
13. After the 1991 Gulf War, the Kurdish people residing in and near Iraq are best classified as a
- (A) nation-state
 - (B) multinational state
 - (C) stateless nation
 - (D) perforated state
 - (E) supranational organization
14. Which of the following is not one of the key assumptions in von Thünen's agricultural location model of an isolated state?
- (A) The isolated state involves flat, uninterrupted land without barriers to farming or transportation.
 - (B) Farmers transport their harvests by accessing the most direct routes.
 - (C) Farmers wish to maximize their profits by minimizing their transportation costs.
 - (D) It costs more to transport produce longer distances.
 - (E) Different soil types and qualities exist throughout the isolated state.

Percentage of *Specific* Ethnic Groupings in Former Yugoslavian Regions

	% Serb	% Croat	% Muslim	% Slovene	% Albanian
Serbia	85				
Croatia		75	12		
Slovenia				91	
Bosnia-Herzegovina	32	18	40		
Montenegro			13		6
Macedonia					20
Kosovo	13				77

15. Based on the table on the previous page, in the Yugoslavian civil wars, which region was most intensely the focus of Serb irredentism?
- (A) Serbia
(B) Bosnia-Herzegovina
(C) Croatia
(D) Macedonia
(E) Slovenia
16. Which of the following countries is predominantly Shiite Muslim?
- (A) Saudi Arabia
(B) Indonesia
(C) Pakistan
(D) Iran
(E) Philippines
17. Which of the following states has only one core region?
- (A) United States
(B) Japan
(C) Nigeria
(D) Malaysia
(E) India
18. When Dutch traders and Japanese traders meet, they often use English to conduct their business transactions. This use of English is an example of a(n)
- (A) pidgin language
(B) creole language
(C) official language
(D) lingua franca
(E) monolingualism



19. On the map of Azerbaijan above, point Z most closely represents which concept?

- (A) Assimilation
- (B) Exclave
- (C) Ghetto
- (D) Multiculturalism
- (E) Multiplier effect

20. Human geography is best defined as the study of

- (A) where and why human activities are located as they are
- (B) where and why natural forces exist
- (C) populations and birth rates
- (D) human civilizations and their changes
- (E) governments and their impacts on the earth's surface

Demographic Data: Ireland

Year	Total Fertility Rate	Dependency Ratio (dependents:workers)
1970	3.9	10:14
1995	1.9	10:18
2006	1.6	10:22

21. Based on the trend demonstrated by data in the table above, which of the following statements can be inferred about Ireland?

- I. When children born in the 1960s entered the workforce in Ireland, fewer children were in the generation behind them.
- II. Fewer Irish women were able to enter the workforce in the mid-1990s.
- III. Laws restricting contraception were lessened in Ireland in the 1970s.
- IV. By 2006 Ireland was experiencing an economic downturn.

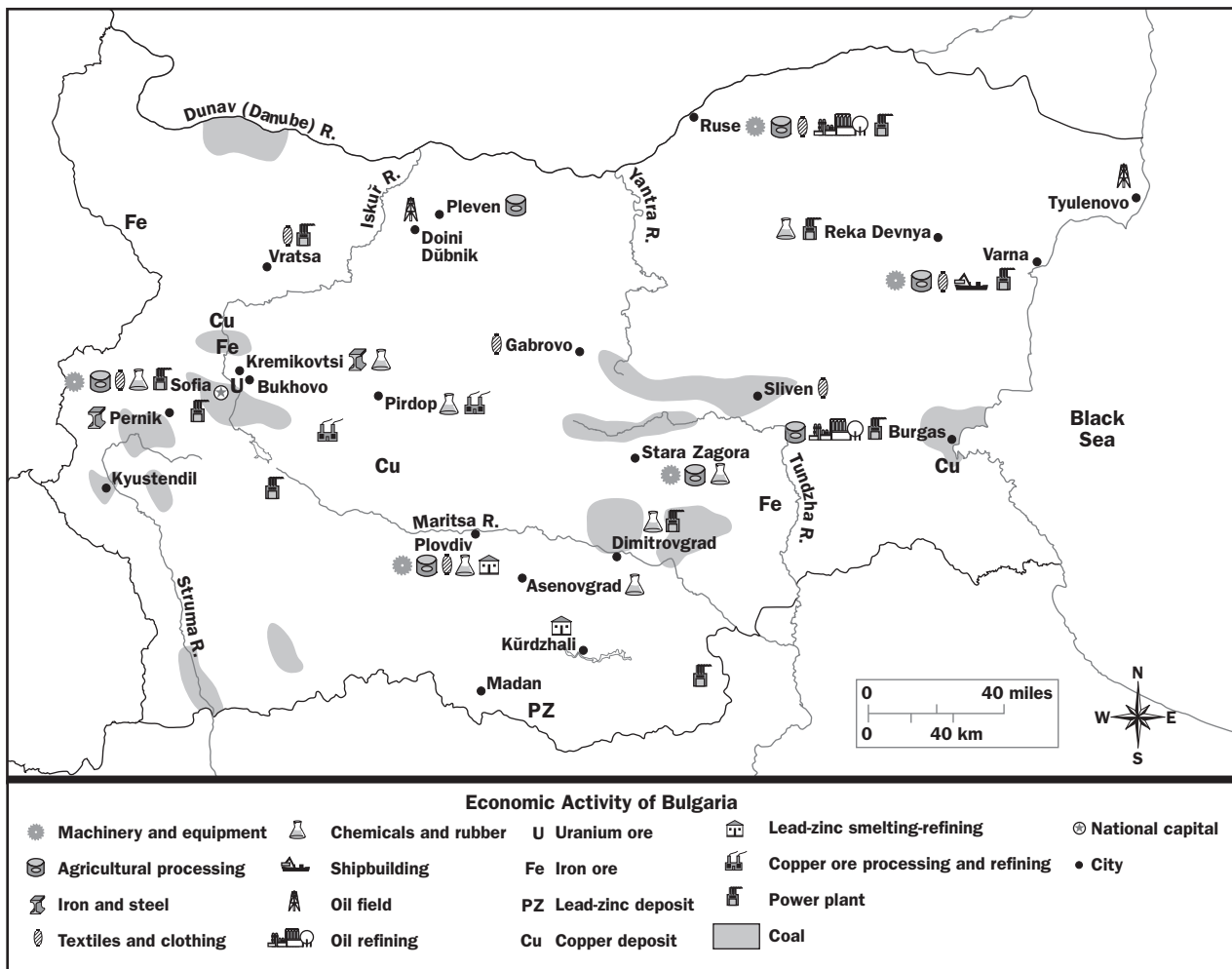
- (A) I
- (B) I and III
- (C) I, II, and IV
- (D) III
- (E) I, II, III, and IV



(Photo by: Davax)

Berlin Wall, circa 2005

22. Niamey, the capital of Niger, is located at 13 degrees 31 minutes north latitude and 2 degrees 7 minutes east longitude. This is Niamey's
- (A) relative location
 - (B) region
 - (C) absolute location
 - (D) node
 - (E) site
23. Which of the following boundary classifications fits that shown in the picture above?
- (A) Natural-political
 - (B) Subsequent
 - (C) Superimposed
 - (D) Relic
 - (E) Antecedent



24. Based on the map of Bulgaria's economic activity above, which of the following regions contains the most agglomeration of secondary economic activities?

- (A) Reka Devnya
- (B) Dimitrovgrad
- (C) Vratsa
- (D) Sofia
- (E) Stara Zagora



25. The image above shows an example of a(n)
- (A) pinyin
 - (B) isoline
 - (C) ideogram
 - (D) shatter belt
 - (E) isolated language
26. Which of the following states is most similar to the concept of a geopolitical nation-state?
- (A) Canada
 - (B) Russia
 - (C) United Kingdom
 - (D) Belgium
 - (E) Japan
27. The Middle East has been called the “cross-roads of the world.” Which fact would best support this statement?
- (A) Most of the world’s oil reserves are there.
 - (B) The Strait of Hormuz is an important waterway.
 - (C) Parts of three continents intersect there.
 - (D) Water bodies surround most of the region.
 - (E) It is characterized by regional, tribal conflict over land.
28. The Gravity Model predicts
- (A) population density
 - (B) agricultural land use patterns
 - (C) urban land use patterns
 - (D) birth rates and death rates
 - (E) spatial interaction between places
29. Which of the following statements accurately applies to theories of development?
- (A) While liberal models assume that every country can develop along the same projection for growth, structuralist models assume that countries are withheld from growth by constraints built into the global economy.
 - (B) Liberal models include the core-periphery models, while structuralist models include Rostow’s economic development model.
 - (C) Structuralist models reject the theory of neocolonialism.
 - (D) Structuralist models assume that economic inequalities between countries are a result of inefficient structure in local or country-wide government policies.
 - (E) Liberal models argue that less-developed countries cannot grow economically because the core countries unfairly suppress the less-developed countries’ opportunities for economic growth.
30. Which of the following regions has the lowest percentage of urban dwellers?
- (A) Eastern Europe
 - (B) Middle East
 - (C) Latin America
 - (D) Southeast Asia
 - (E) Western Europe

31. Which of the following is true of U.S. agriculture?

- (A) Most U.S. farms are owned by agribusiness corporations.
- (B) Nearly 20 percent of the U.S. workforce is involved in agribusiness.
- (C) The amount of U.S. land devoted to agriculture has decreased.
- (D) The number of U.S. farms has increased since 1900.
- (E) The largest farms, nearly 4 percent of total U.S. farms, account for only 10 percent of U.S. agricultural output.

32. According to world-systems analysis, the world's states

- (A) strengthen when involved in supranational organization
- (B) are divided into a heartland and rimland
- (C) compete for Eurasian dominance
- (D) exist in a mobile structure of economic advancement
- (E) must be seen in the context of a global capitalist economy



(Photo by W. McLean)

33. The photograph above was taken in which of the following cities?

- (A) Mecca, Saudi Arabia
- (B) Jerusalem, Israel
- (C) Kuala Lumpur, Malaysia
- (D) São Paulo, Brazil
- (E) Tehran, Iran

34. Which of the following correctly sequences the evolution process of boundaries, starting with the first stage and ending with the last?

- (A) Definition, delimitation, demarcation
- (B) Definition, demarcation, delimitation
- (C) Demarcation, definition, delimitation
- (D) Delimitation, demarcation, definition
- (E) Demarcation, delimitation, definition

35. Which of the following statements best describes the growth pole concept?

- (A) Growth poles first cause deindustrialization.
- (B) The growth pole concept only operates at the national or supranational geographic scale.
- (C) The development of growth poles leads to deglomeration.
- (D) Growth pole development is often led by one particularly commanding industry or firm.
- (E) Once a region becomes a megalopolis, growth poles disappear in influence.

36. Which of the following is most likely NOT a significant factor causing the growth of favelas, barrios, and *barriadas* in Latin America?

- (A) Natural disasters
- (B) Strained infrastructure
- (C) Urban migration
- (D) Population increases
- (E) Housing shortages

37. All the following are regions where ranching is practiced widely EXCEPT

- (A) Central Europe
- (B) Southern Africa
- (C) Australia
- (D) Southeast South America
- (E) Central Asia

38. Which of the following best defines the cultural landscape approach in geography?

- (A) Each region has a uniquely built environment that is constructed by social processes and their impacts on the surrounding natural features.
- (B) Geography is a result of human processes that shape the earth's features.
- (C) Humans are driven by their environments and consequently shape their surroundings.
- (D) Environmental perception drives industrial development.
- (E) Physical geography is less significant than human constructions in shaping the landscape.

COUNTRY
1. Japan
2. Italy
3. Germany
4. Greece
5. Sweden

39. The table above lists the countries with the

- (A) highest natural growth rates
- (B) shortest doubling times
- (C) lowest percentages of dependents
- (D) grayest populations
- (E) largest populations of guest workers

40. Which of the following statements most closely aligns with the theory of environmental determinism?

- (A) The physical environment interacts with human groups in shaping the cultural landscape.
- (B) Humans create a series of reactions to the physical environment in which they live and choose from a set of possibilities the best course of action to suit their circumstance.
- (C) The physical environment directly causes human actions to take the forms they do.
- (D) The physical environment may affect human choices, but human groups ultimately can shape the physical environment to fit their needs.
- (E) Resources drive the creation of a set of tensions between the regions of the world rich in food and those most needing it.

41. The spread of baseball to China is most closely an example of which process?

- (A) Agglomeration
- (B) Cultural convergence
- (C) Centripetal forces
- (D) Balkanization
- (E) Conurbation



42. In which place labeled on the map above do the largest number of people live as irredenta of Albania?

- (A) Montenegro
- (B) Kosovo
- (C) Vojvodina
- (D) Podgorica
- (E) Belgrade

43. Which of the following examples best illustrates the impact of toponyms in contributing to human conflict?

- (A) Washington, D.C.
- (B) São Paulo, Brazil
- (C) Mumbai, India
- (D) Tokyo, Japan
- (E) Berlin, Germany

44. Which of the following most closely qualifies as a buffer state?

- (A) China
- (B) Mongolia
- (C) France
- (D) Venezuela
- (E) Macedonia

45. In which of the following regions would the sawah pictured below most likely NOT exist?

- (A) Indonesia
- (B) Northern India
- (C) Southeastern China
- (D) Malaysia
- (E) Vietnam



46. Which of the following processes is most likely to be bulk reducing?

- (A) Automobile manufacturing
- (B) Copper refining
- (C) Computer production
- (D) Clothing manufacturing
- (E) Soda bottling

47. Ukraine, the Czech Republic, Slovenia, and the Republic of Korea share which worldwide demographic trend?

- (A) High crude birth rate
- (B) Low doubling time
- (C) High natural rate of increase
- (D) Low total fertility rate
- (E) Low dependency ratio

Figure 1

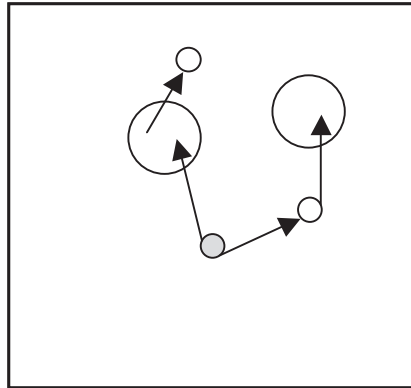
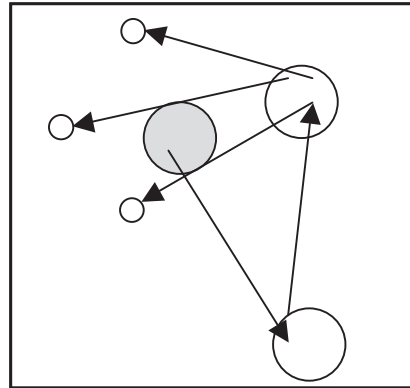


Figure 2

**Legend**

- Shading indicates node of infection
- The larger the circle, the larger the community infected
- Arrows indicate spatial diffusion path

48. Which of the following accurately describes the infection patterns depicted in each figure above?
- (A) Figure 1 demonstrates the pattern of hierarchical diffusion, and Figure 2 shows contagious diffusion.
- (B) Figure 1 primarily demonstrates a contagious diffusion pattern, and Figure 2 shows hierarchical diffusion.
- (C) Figures 1 and 2 primarily demonstrate contagious diffusion patterns.
- (D) Figures 1 and 2 primarily demonstrate hierarchical diffusion patterns.
- (E) Neither Figure 1 nor Figure 2 demonstrates contagious diffusion patterns.
49. Which of the following demographic tools is used more as a predictive measurement of fertility in a society?
- (A) Total fertility rate
- (B) Crude birth rate
- (C) General fertility rate
- (D) Infant mortality rate
- (E) Literacy rate
50. Which of the following is NOT an independent state on the current world map?
- (A) Burma (Myanmar)
- (B) Yugoslavia
- (C) East Timor
- (D) Albania
- (E) Hungary

51. Subsistence agriculture

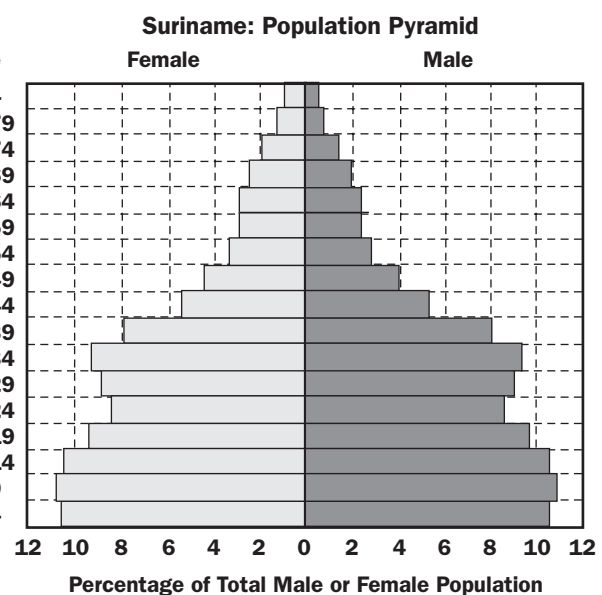
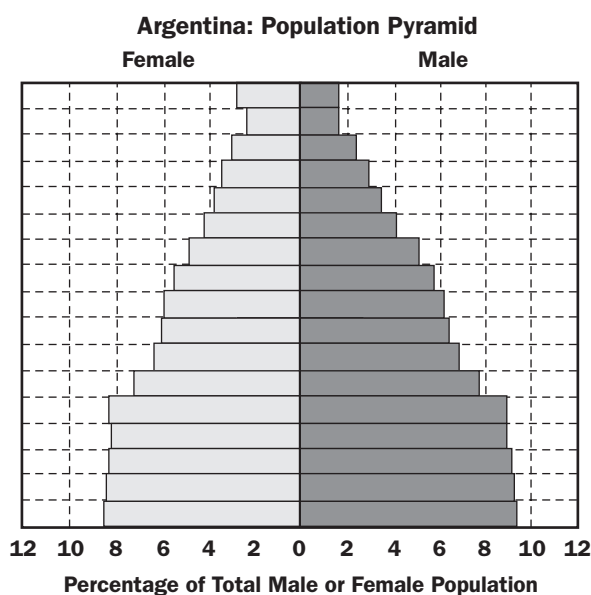
- (A) does not include the herding of animals
- (B) is aimed at producing surplus crops for sale in the market
- (C) is becoming increasingly dominant in the world
- (D) is characterized by production of food for consumption by the farmers and their families
- (E) is most practiced in South America

52. Which of the following first focused world attention on global climate change, facilitating discussions by leading world countries to reduce greenhouse gas emissions?

- (A) UNCLOS
- (B) Kyoto Protocol
- (C) NAFTA
- (D) Benelux
- (E) Comintern

53. Which of the following accurately contrasts the demographic trends of Suriname and Argentina, based on the 2004 age-sex pyramids shown below?

- (A) Argentina is most likely in stage 1 of demographic transition, while Suriname is likely in stage 3.
- (B) Argentina has a higher percentage of women in the fecund range than does Suriname.
- (C) Life expectancy in Suriname is higher than Argentina.
- (D) Since the 1990s birth rates have changed more in Suriname than in Argentina.
- (E) Women have a lower life expectancy in Argentina than in Suriname.



54. In addition to India, which country is home to the largest number of Hindus?

- (A) Pakistan
- (B) Senegal
- (C) Sri Lanka
- (D) China
- (E) Nepal

55. The picture below was taken on the Paseo de la Reforma, a prominent boulevard in Mexico City, Mexico. This picture most closely reflects which concept?

- (A) Agglomeration of industries
- (B) Lasting colonial imprints
- (C) Communist ideology
- (D) Impact of greenhouse gas emissions
- (E) Creation of a forward capital



56. The Kentucky Governor's Scholars Program, which offers scholarships covering full room and board to talented high school seniors if they choose to go to in-state universities, was established primarily to prevent
- (A) brain drain
 - (B) guest workers
 - (C) intraregional migration
 - (D) immigration
 - (E) intervening opportunity
57. Diffusion on a microscale often occurs most intensely around the initial adopter, or innovator. This is referred to as
- (A) susceptibility
 - (B) maladaptive diffusion
 - (C) stimulus diffusion
 - (D) independent invention
 - (E) neighborhood effect
58. The push in Northern Ireland to separate from its United Kingdom-based government and reintegrate with Catholic Ireland best exemplifies
- (A) devolution
 - (B) neocolonialism
 - (C) centripetal forces
 - (D) structuration theory
 - (E) gerrymandering
59. Which of the following is true of commercial farming in more-developed countries?
- (A) Consumption of a particular food product is usually highly related to its market price.
 - (B) Commercial farmers face surpluses of their harvests because of stagnant market demand.
 - (C) The food supply in more-developed countries has remained relatively constant since the 1960s.
 - (D) Low population growth has not affected agricultural markets.
 - (E) Farmers in the United States are encouraged by the government to grow surpluses.
60. Newspapers, bakeries, and dairy plants are examples of
- (A) footloose industries
 - (B) ubiquitous industries
 - (C) entrepôts
 - (D) cultural convergence
 - (E) bulk-reducing industries
61. All the following are accurate generalizations of human migration in England in the 1880s EXCEPT:
- (A) Streams of migration often produce counterstreams, which are usually small.
 - (B) Migrants moving long distances usually travel to one of the great centers of commerce and industry.
 - (C) Most migrants travel only small distances.
 - (D) Migration is a step-by-step journey.
 - (E) Large towns grow more by natural increase than by migration.

62. A major change over the last 30 years in the list of the world's 20 largest (most-populated) cities is that
- (A) no South American city appears on the list
 - (B) New York City has fallen off the list
 - (C) the dominant presence on the list of Western industrial cities has reduced
 - (D) the average annual change is nearly 30 percent
 - (E) the average size of cities on the list is nearly 30 million inhabitants
63. Vegetative planting
- (A) is growing plants by dividing roots and cutting stems
 - (B) involves planting seeds to cultivate a crop
 - (C) is defined as the commercial farming of vegetable crops such as radishes and lettuces
 - (D) most likely followed the human discovery of planting and cultivating seeds
 - (E) originated in South America
64. Which of the following statements is directly supported by the data in the table below?
- I. Canada has a smaller population than Egypt or the Netherlands.
 - II. The Dutch use more mechanized farming tools than the Egyptians.
 - III. Dutch cities are more densely populated than Egyptian or Canadian cities.
 - IV. Egypt has less arable land per person than the Netherlands or Canada does.
- (A) I
 - (B) I and III
 - (C) I, II and IV
 - (D) II, III, and IV
 - (E) II and IV

Population and Agricultural Density Measurements

Country	Population Density		Agricultural Density
	Arithmetic	Physiological	
Egypt	70	3,503	1,401
The Netherlands	398	1,601	64
Canada	3	35	1

Source: Rubenstein, 2005

65. Which of the following agricultural types is predominantly found in peripheral countries?
- (A) Truck farming
 - (B) Mixed crop and livestock
 - (C) Mediterranean
 - (D) Plantation
 - (E) Organic
66. Feeding Kuala Lumpur's industrial growth has drained other Malaysian cities and regions of valuable workers and resources. This example best demonstrates
- (A) cumulative causation
 - (B) territoriality
 - (C) the median-line principle
 - (D) the dependency theory
 - (E) counterurbanization
67. All the following are considered 21st-century world cities EXCEPT
- (A) Seoul, South Korea
 - (B) Istanbul, Turkey
 - (C) São Paulo, Brazil
 - (D) Kolkata, India
 - (E) Vienna, Austria
68. When Worth Industries was successful in Tokyo, Japan, it drew more jobs to the region, which in turn added more businesses and development. This case study is an example of
- (A) multiple-nuclei development
 - (B) gravity model patterns
 - (C) the multiplier effect
 - (D) doubling time
 - (E) epidemiological transition
69. The process of profits from outsourced factories flowing from the periphery back to the core is known as
- (A) machine space
 - (B) multiplier leakage
 - (C) foreign direct investment
 - (D) backwash effects
 - (E) terraforming
70. The surge in internal migration after 1960 of Mexican women to the border between the United States and Mexico is most influenced by which factor?
- (A) The chance of crossing the border
 - (B) The construction of maquiladoras
 - (C) Antinatalist policies in central Mexico
 - (D) Educational opportunities
 - (E) Forced migration

71. Which type of agriculture is practiced by the most people in the world?
- (A) Shifting cultivation
 - (B) Pastoral nomadism
 - (C) Mediterranean
 - (D) Plantation
 - (E) Intensive subsistence
72. Which of the following is the strongest example of an ecotourism industry?
- (A) Theme park with a roller coaster
 - (B) Guided trail hike to view a rain forest
 - (C) Beachfront resort
 - (D) Oceangoing cruise ship
 - (E) Go-cart track
73. A country that enacts pronatalist policies will most directly cause which of the following demographic effects?
- (A) Higher crude death rate
 - (B) Longer life expectancy
 - (C) Higher total fertility rates
 - (D) Slower rate of natural increase
 - (E) Slower doubling time
74. Which of the following best exemplifies exurbanization?
- (A) People in their 20s moving from farms to cities for excitement
 - (B) A newly married couple moving from the rural areas to the suburbs to raise their children
 - (C) A retired couple moving from their city apartment to a quiet community in a remote, rural village promising greater peace and tranquility from the city's hustle and bustle
 - (D) The renovation of a warehouse into a luxurious high-rise loft apartment complex
 - (E) The concentration of similar businesses around a shared resource
75. Which of the following central place functions is most likely to have the smallest range of goods and smallest threshold population?
- (A) Research university
 - (B) Helicopter repair shop
 - (C) Gas station
 - (D) Allergy-testing clinic
 - (E) Computer store

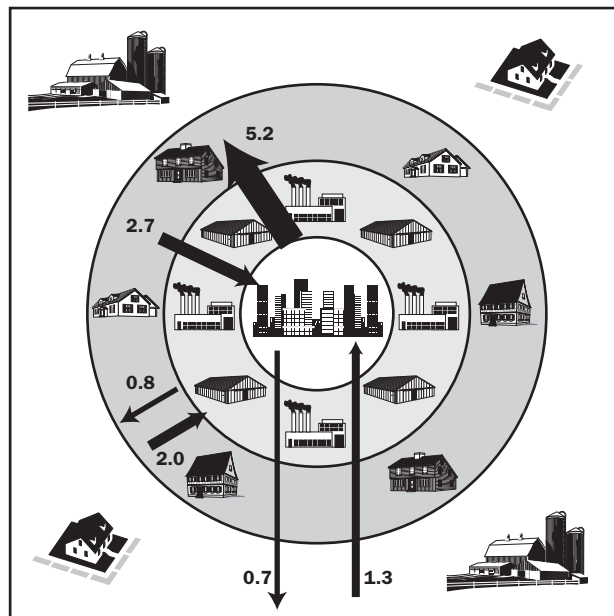
Section II

TIME: 75 minutes

3 free-response questions

Directions: You have 75 minutes to answer all three free-response questions in this section. Take a few minutes to outline your answers. Illustrate your essay with substantive examples when appropriate. It is not enough to answer a question by merely listing facts. You should present a cogent argument based on your critical analysis of the question posed and your understanding of geography.

1. The figure below depicts an example of U.S. intraregional migration in the 1990s.
 - (A) Describe the migration pattern shown in the figure.
 - (B) State at least two of Ravenstein's laws of migration and analyze the relevance of each to explaining the migration pattern depicted in the figure.
 - (C) Explain the combination of factors that work to create the migration pattern demonstrated in the figure. In your response apply the demographic transition model to your explanation of the pattern demonstrated.



2. (A) Define *monolingualism*, and give an example of a monolingual country.
- (B) Multilingualism often reflects strong cultural pluralism and regional division.
- Define *multilingualism*.
 - Give an example of a multilingual state in either North America or Europe, and explain how linguistic diversity has contributed to regionalism in that state.



Werthan Mills Plant, circa 1950, was in an inner-city neighborhood in East Nashville, Tennessee.



(Images Courtesy of Tennessee State Library and Archives, Nashville)

The luxurious loft apartments at the former Werthan Mills Plant circa 2007.

3. (A) Define *gentrification*.
- (B) Relate gentrification to the photographs above. The modern loft apartments sell for roughly \$200,000 each.
- (C) Explain one positive and one negative effect of gentrification as a proposed method of urban renewal.

Answer Key

Section I

- | | | | |
|---------|---------|---------|---------|
| 1. (E) | 20. (A) | 39. (D) | 58. (A) |
| 2. (B) | 21. (B) | 40. (C) | 59. (B) |
| 3. (C) | 22. (C) | 41. (B) | 60. (B) |
| 4. (B) | 23. (D) | 42. (B) | 61. (E) |
| 5. (B) | 24. (D) | 43. (C) | 62. (C) |
| 6. (D) | 25. (C) | 44. (B) | 63. (A) |
| 7. (A) | 26. (E) | 45. (B) | 64. (E) |
| 8. (E) | 27. (C) | 46. (B) | 65. (D) |
| 9. (A) | 28. (E) | 47. (D) | 66. (A) |
| 10. (B) | 29. (A) | 48. (B) | 67. (E) |
| 11. (E) | 30. (D) | 49. (A) | 68. (C) |
| 12. (D) | 31. (B) | 50. (B) | 69. (B) |
| 13. (C) | 32. (E) | 51. (D) | 70. (B) |
| 14. (E) | 33. (B) | 52. (B) | 71. (E) |
| 15. (B) | 34. (A) | 53. (D) | 72. (B) |
| 16. (D) | 35. (D) | 54. (E) | 73. (C) |
| 17. (B) | 36. (A) | 55. (B) | 74. (C) |
| 18. (D) | 37. (A) | 56. (A) | 75. (C) |
| 19. (B) | 38. (A) | 57. (E) | |

Detailed Explanations of Answers

Section I

1. (E)

Agglomeration is the process of locating similarly functioning entities, such as the car dealerships, in close proximity. (A) is the inverse process in which geographic phenomena are separated. (B) refers to the general ease with which a given place can interact with other locations. (C) refers to the resolution levels in mapping and geographic research. (D) occurs when a place is indistinguishable from any other place and does not have a sense of being unique.

2. (B)

According to the rank-size rule, there is a regular pattern or hierarchy in the ordering of cities according to size. A country's n th-largest city is always $1/n$ the size of the country's largest settlement. Therefore, the country's fourth-largest city is one-fourth the size of its largest city.

3. (C)

A federal government structure is one in which the constituent regions in the country have protected authorities yielded to them by the central government, which shares power with them. (A), (B), (D), and (E) are unitary government structures, which are characterized by a power concentration in a central government with little or no authority yielded to provincial regions.

4. (B)

Hinduism did not originate with one person or prophet who spread its teachings, whereas (A) was spread by Siddhartha Gautama; (C) is linked to Islam's prophet, Muhammad; (D) is associated with its organizer, Laozi; and (E) was founded by the philosopher Confucius.

5. (B)

Migration selectivity asserts that humans react to new conditions presented in their lives. As a consequence of these conditions, humans often make decisions (or are forced) to move. Push factors “push” people out of a region, or make them want to leave; examples are climate change or high taxes. Pull factors “pull” people to a particular region, or make them want to move there; examples are good schools or better job opportunities. It is important to note, however, that a person’s decision to move is not entirely in that person’s control. Important influences in the push-pull balance are beyond the individual’s control, such as rising taxes or environmental change. (A) is incorrect because push-pull factors fall into several categories, including economic and social categories. (C) is incorrect because a push factor to one person may be a pull factor to another. For example, “being closer to Mother” may be a pull factor to one person and a push factor to another, depending on the person’s relationship with Mother. (D) is incorrect because each location has a unique set of features that are valued differently by different people. (E) is incorrect because humans do not always move when forced to live in unfavorable circumstances. Sometimes people do not have the ability to move, as when living under a totalitarian regime.

6. (D)

Isoglosses are boundaries within which a particular word is used. North of the isogloss in the diagram, *Pop* is dominantly used, while south of it *Coke* dominates usage. (B) are symbols in a language that connote the idea being communicated rather than the sound. (C) is a simplified form of a lingua franca (or language used for trade); often pidgins are characterized by simplified vocabulary and grammatical structures. (E) is a derogatory term describing the influx of new words and phrases from other languages or regions into another; typically the word is used by people wanting to keep their language free from outside influences.

7. (A)

Usually states with compact shapes, ideally circular, can fit into a unitary governmental organization because regionalism is not as present as in a fragmented state, for example. The other answer choices set the stage for a federal state, or one that allows for a sense of regional semisovereignty tied to a national government of representation. For example, Australia and the United States have multicore structures (i.e., have more than one power base or region in the country), wide territories, ethnic diversity, and regionalism (i.e., competing regions).

8. (E)

Sub-Saharan Africa's food production has declined and is still dropping as a result of environmental damage related to overfarming and desertification, governmental corruption, disease, and the inability of local farmers to compete in the global agricultural economy. Therefore sub-Saharan Africans have the lowest caloric intake of any people on the earth, making (A) incorrect. (B) is incorrect because malnutrition most affects children in rural areas, which typically lack access to governmental aide and other food sources. (C) is incorrect because the Green Revolution has actually had a limited impact in sub-Saharan Africa compared with other world regions, such as South America. (D) is incorrect, because agribusiness investments and the globalization of agriculture have forced many local farmers out of the competition in the farming marketplace.

9. (A)

Following are the Human Development Index levels for the regions in the correct response: Anglo-America, 0.94; western Europe, 0.92; eastern Europe, 0.78; Southeast Asia, 0.71; Middle East, 0.66. This makes (A) the correct order.

10. (B)

Redlining is the illegal practice by banks and other financial institutions of refusing to lend to people and firms based on their geographic places; it had racist overtones when banks would not give African Americans loans to buy houses in certain areas, keeping those areas all white. Redlining can lead to ghettoization (D), the creation or maintenance of low-income, underprivileged neighborhoods characterized by cyclical poverty. (A) is when real estate agents create racially based fear that leads people to move out of their neighborhoods and that ultimately benefits the agents who sell the homes. (C) is the purposeful redistricting of electoral regions to benefit particular political parties. (E) is the hard-to-trace practice of real estate agents who take people of certain races to see homes in certain areas, leading to segregation patterns and racially grouped living patterns.

11. (E)

An independent state is a country. There are approximately 200 independent countries on the earth.

12. (D)

The hearth of Islam is believed to be the city of Mecca, which is on the western side of Saudi Arabia near the Red Sea. This is the point, along with the Saudi Arabian city of Medina, from which Islam diffused. Every able-bodied Muslim is called to make a pilgrimage to visit the Holy Mosque in Mecca once in a lifetime. The other choices, though they exist in the Middle East, are not the birthplace of the religion. However, (C) is a tempting choice because it is home to what Muslims believe to be the third-holiest site in Islam, the Dome of the Rock.

13. (C)

A stateless nation is a nation or strongly linked cultural group without a state to call its own. The Kurds form a large minority nation in Iran, Turkey, and Iraq. Although they wish to have their own state, the regime of Saddam Hussein in Iraq worked violently against it, and the Kurds face opposition to this concept from their neighboring Arab states. (A) is a country in which the borders of the dominant nation (or group) match the borders of the country, such as Iceland. (B) is a country housing several nations within its borders. (D) is a country whose land totally encompasses the land of another country. (E) is an organization involving three or more countries that are working to promote shared objectives, such as the United Nations or the European Union.

14. (E)

The von Thünen model makes all the listed assumptions except for (E), because von Thünen assumed that soil quality and type were similar across the isolated state. By equalizing the soil type and quality, von Thünen focused his model on analyzing farmer's choices based on cost of transportation and land nearest to the market.

15. (B)

Irredentism is when one group of people seeks the return of their people (or land) from a region not controlled by them. In the Yugoslavian civil wars of the 1990s, the dominating Serbs longed to keep their fellow Serbs together under one government. Since Bosnia-Herzegovina has the highest percentage (32 percent) of Serbs living outside of Serbia, the Belgrade government of the disintegrating Yugoslavian state wanted bitterly to keep Bosnia-Herzegovina from seceding and forming an independent state. Although the Serbs in Serbia (A) were experiencing irredentism, the bloodiest focus (or cause) of this desire was Bosnia-Herzegovina, where so many Serbs resided outside Serbia. Croatia (C) had a much smaller percentage of ethnic Serbs within its boundaries, as did Macedonia (D) and Slovenia (E). Consequently, their attempted secession from the crumbling Serb-controlled Yugoslavian government was much less bloody than Bosnia's attempt.

16. (D)

The two largest branches of Islam are Sunni and Shiite. Iran is nearly 89 percent Shiite, whereas most Islamic countries are predominantly Sunni, as in the remainder of the answer choices. Worldwide there are only about 165 million Shia compared with nearly 1 billion Sunnis.

17. (B)

The region of Japan that centers on Tokyo is a clear national core. This area, known as the Kanto Plain, is a highly urbanized region that is the economic and sociopolitical nucleus of the country. (A), (C), and (E) are multicore states, each with several regions that compete for dominance rather than one, clear seat of economic and sociopolitical power. (D) is a fragmented state without one clear core around which activities ambulate.

18. (D)

A lingua franca is a language used between two people who speak different languages. When Japanese and German traders meet and turn to English to communicate, English is being used as the lingua franca between the traders. (A) is a simplified form of a dominant language adopted by a people wanting to use that language to participate in the region dominated by that language. When that simplified form of a dominant language, a pidgin, replaces the mother tongue of those people using the pidgin, that simplified variant of the language becomes known as a creole language (B). (C) is the language selected by a government for official purposes and documents. (E) is when only one language exists in a region, which in modern countries is a rarity.

19. (B)

An exclave is a region of land separated from but politically controlled by its motherland. On the map, the portion of land marked Z is named Naxcivan (or Nakhichevan) and is an exclave of primarily Muslim Azerbaijan. Notice its position within Armenia, which is primarily Christian. This position has caused much conflict between the two regions, and migrants pass between the two regions. (A) is an extension of acculturation, a process in which a culture group loses some of its original traits when it comes into contact with another more dominant culture group. Assimilation is when authentic, defining traits are lost to complete integration within a new culture. A ghetto (C) is a cultural enclave, wherein people of a similar, often minority and economically or politically oppressed, culture reside or are forced to reside. (D) is the presence of many languages, races, and other culture groups within the same region. When the basic sector of the economy—that which brings money to a region from the outside (e.g., a factory)—is cultivated, the growth of the nonbasic sector doubles; that is the multiplier effect (E).

20. (A)

Human geography essentially attempts to answer the questions of where and why human activities occur in the patterns that they do. (B) describes physical geography, which often complements human studies. (C), (D), and (E) are components of human geography but too limited to serve as a definition.

21. (B)

The data displayed in the table relates to the decreasing dependency ratio in Ireland after Ireland relaxed its laws preventing contraception, which could be inferred from the table by tracing the pattern of the total fertility rate (TFR). Over the years highlighted, the TFR (the number of children born per woman) steadily declined, allowing more women to enter the workforce because they were not solely having children. By 2006 the combination of more women working and fewer children being born per woman increased the workforce and reduced the number of dependents per worker. This led to an economic surge in Ireland by the turn of the millennium, thus ruling out (C) and (E). Statement I is accurate because the number of children per woman decreased starting in the 1970s, leading to smaller generations of children in the following years.

22. (C)

Absolute location is defined as the exact position of a place on the global grid, using latitude and longitude. A location's address, such as 123 Main Street, Brookings, South Dakota 57007, can also be seen as a form of absolute location because only one place on the map can have that exact address. (A) is a location's place relative to other places; (B) is a general term used for a group of places sharing some sense of commonality; (D) is the hearth of a functional region, the focal point of some spreading phenomenon; and (E) comprises a place's physical characteristics.

23. (D)

A relic boundary is a boundary that once functioned to divide territory or people but now is only a reminder of that boundary. The remnants of the Berlin Wall are a reminder of a boundary that once divided Berlin. The Berlin Wall was a superimposed boundary when it was functioning but is a relic because it no longer functions. (A) is a boundary that follow lakes, rivers, or natural features. (B) is a boundary created and adjusted along with the cultures affected by it. (C) is a boundary forcibly placed "on top of" a culture and is not sensitive to that culture. (E) is a boundary that existed before the development of the human cultures it serves to divide.

24. (D)

Secondary economic activity involves the refining or processing of the earth's resources extracted in primary economic activities, such as farming. Agglomeration is the clumping or clustering of economic activities for economic advantage; the clumped businesses or industries share resources. In Sofia the machinery and equipment industry, agriculture-processing industry, textiles and clothing industry, chemicals and rubber industry, and power plant can all exchange goods and services to support each other's functions. Additionally, Sofia is Bulgaria's capital city, having the largest population and available workforce. The other choices, although they have secondary industries, do not have as much agglomeration of secondary economic activities as does Sofia.

25. (C)

Ideograms are written expressions in a language that communicate not a sound but an idea, so they are symbolic representations of ideas in a language. Chinese uses ideograms, such as the one displayed. (A) is the system of using roman letters to write out the phonetics of the Chinese language, instead of using ideograms. (B) is a line on a map that connects points of equal value; isolines often appear on topographic maps and weather maps. (D) is an area where many languages are spoken. (E) is a language that does not show any interaction with other languages and does not belong to a language family.

26. (E)

A nation-state is a country in which the boundaries of the state match the ethnographic boundaries of the people within those political borders, a place in which there is ethnic and political cohesion. Japan is most aptly termed a nation-state because it has a relatively cohesive population compared with the other nations listed. (A) exemplifies multinationalism because Canada has French-speaking and English-speaking residents. (B) has thousands of minority nations within the knit of its federation. The population of (C) includes people from prominent minority nations, such as Africans. (D) is geographically and culturally split between the Fleming and Walloon nations.

27. (C)

The Middle East is situated at the intersection of Europe, Asia, and Africa, which has resulted in its being both a victim of invasion and a prominent part of trade routes throughout history. Although (A), (B), (D), and (E) are true, they are too limited in scope to explain the comment linking this region to its position as a crossroads of peoples.

28. (E)

The Gravity Model is used by geographers to predict the spatial interaction of places, as a function of population sizes of the places in question and the distance between the places. There is no known model to predict population density (A), *per se*, but the demographic transition model does predict birth and death rates (D), and the von Thünen Model predicts agricultural land use patterns (B). Models such as the concentric zone model and the urban realms model (among others) predict and explain urban land use patterns (C).

29. (A)

Liberal models, such as Rostow's economic development model, assume that all countries can develop if they improve practices within their own economies. In contrast, structuralist models of development, such as the dependency theory and core-periphery models, argue that the structure of the international economy controls and limits the growth potential of peripheral countries. (B) has reversed the two ideas, because Rostow's is a liberal model, while core-periphery models are structuralist. (C) is not correct because structuralist models embrace the concept of neocolonialism, arguing that countries that were once colonized by core countries are now economically dependent on their former colonial masters. (D) describes liberal models, while (E) describes structuralist models.

30. (D)

While Southeast Asia may have large numbers of urban dwellers, it has the lowest percentage (around 40 percent) of urban dwellers, because most Southeast Asians still live in rural, subsistence farming villages. (B) is nearly 60, and (A), (C), and (E) are nearly 80 percent.

31. (B)

Agribusiness refers to the system of farming, processing, packaging, distribution, marketing, and sale of farm products. Agribusiness is the food production industry, which accounts for nearly 20 percent of all U.S. workers. (A) is incorrect because most U.S. farms, nearly 98 percent, are still family owned. (C) is incorrect because the amount of U.S. land devoted to farming has increased. The number of U.S. farms has decreased since 1900, making (D) incorrect. The largest farms, comprising 4 percent of the total U.S. farms, accounts for nearly 50 percent of U.S. agricultural output.

32. (E)

World-systems analysis asserts that the world's countries are divided into three subgroups: the core, the semiperiphery, and the periphery. The world, according to the theory, is essentially an economic system driven by capitalism and competition for resources. (A) is unrelated and a distracter, although supranational organizations can influence international structures. (B) and (C) are elements of Mackinder's heartland theory. (D) is not necessarily true because it is questionable whether states can move in a fluid manner from the peripheral zones of global power to core positions. Some geographers assert that such mobility is not something that can be achieved by individual states but is more related to global economic structures.

33. (B)

The photograph, taken in Jerusalem, Israel, shows the Dome of the Rock, the third-holiest site to Muslims, following Mecca and Medina in Saudi Arabia. It also shows remains of the Western Wall, which is a holy site to Jews because it is believed to be what is left of the western wall of the Temple of Solomon. The juxtaposition of these two holy sites is at the root of the Israeli-Arab conflict.

34. (A)

Definition, the first stage of the boundary evolution process, is when a treaty or document is written out with a description, and agreement of the boundary is spelled out. At the second stage, delimitation, the boundary is marked on a map. Finally, demarcation (which often does not occur) is when the boundary is formally marked on the land, with a line, a fence, or some other physical marker.

35. (D)

Growth poles are regions of extraordinarily high economic and industrial growth that are often initiated and driven around a single firm or industry leading the growth explosion, such as a new factory or research initiative. (A) is false because growth poles first cause heightened industrialization around the process causing growth. (B) is false because growth poles can be local or regional if they apply to a region, like the Ruhr region in Germany's industrial core, or a factory in a town that attracts positive growth. (C) is false because growth poles lead to agglomeration and clustering of like-minded processes around the area of magnetic growth to take advantage of the momentum and to feed the growth. (E) is not true because a megalopolis is caused by or evidence of growth poles.

36. (A)

Favelas, barrios, and *barriadas* are squatter settlements on the outskirts of many rapidly growing Latin American cities that are the focus of intense urban migration (C). Unfortunately, these cities cannot adequately house all the migrants (E), and the cities' support services and infrastructures, such as plumbing are strained (B). People are moving to the cities to take part in the industrialization process, coupled with population increases in part owing to improved medical care and farming practices diffusing to less-developed countries in Latin America (D).

37. (A)

Ranching is the raising of animals on large tracts of arid and semiarid land (extensive) on which the animals graze. It is usually practiced in more-developed countries on land where the vegetation and soil do not support crops. Mixed crop and livestock farms prevail in central Europe, whereas ranching is prevalent in the other areas listed.

38. (A)

The cultural landscape of a region is the imprint of human activity on the earth's surface; it is the fingerprint of human activity on the natural environment. Therefore, the cultural landscape approaches geography through the lens of both physical (natural) and social (cultural) processes. (B) is too limited in that it does not include the nature of human–environment interactions that are at the base of the cultural landscape approach. (C) describes the theory of environmental determinism, which states that people's actions are determined by the climate and natural environment in which they live. Both (D) and (E) are unrelated and not valid theories.

39. (D)

Except for Japan, the world's oldest countries are in Europe. These highlighted countries are experiencing "aging populations" in which the rate of natural increase is lowering and the dependency ratio is increasing. (A), (B), and (C) are the inverse of the situation in these countries, because each has a low natural growth rate and the resulting long doubling time and high dependency ratio. Although countries like Italy and Germany have high numbers of guest workers, Japan has strictly regulated the immigration of workers, thus making (E) incorrect.

40. (C)

Environmental determinism asserts that the physical environment directly causes human behavior, that humans are driven by their environments to take certain actions. This 19th century theory would have agreed with the idea that warmer areas create more-productive people. (A) is too vague and does not capture the theory of environmental determinism in the more exact way that (C) does. Both choices (B) and (D) more accurately reflect the theory of possibilism, a response to environmental determinism that argues that the physical environment may limit human actions by presenting a set of feasible choices that humans can work with to fit their needs. (E) is unrelated to the topic.

41. (B)

Cultural convergence is a result of cultural diffusion, when a trait, such as baseball, from one culture spreads into another culture and is adopted. (A) is the clumping of people and activities in one region for shared benefit, such as the grouping of factories in an industrial park to share resources. (C) are forces that unite a geographic unit, such as a national flag around which people can rally. (D) is the breakup of a country or other geographic unit into smaller (usually ethnic) units, such as what happened in the former Yugoslavia. (E) is the grouping of major metropolitan regions to form a megacomplex (sometimes called a megalopolis) of one urbanized area.

42. (B)

Kosovar Albanians longed desperately to be reunited with Albania, although Kosovo was an administrative unit of Serbia. This issue became a flash point in the 1990s as Yugoslavia devolved toward breaking into nation-states. (A) Montenegro is home to most ethnic Montenegrins, who also resented Belgrade's controlling presence. (C) is a region north of Belgrade with few ethnic Albanians; (D) is the largest city and the unofficial capital of Montenegro; and (E) is the capital of the Serb province and was home to the former Serb dictator Slobodan Milosevic's power base.

43. (C)

Toponyms are place names. Often human groups will wage war over the name of a place, because names symbolize power structures and history. Mumbai, India, is a toponym that is the result of an ongoing conflict in India over that city's name, which was recently changed from its colonially imposed name of Bombay, given by India's British occupiers. The other answer choices are places not associated with conflicts over place names.

44. (B)

A buffer state exists geographically between two potentially hostile or warring states. It is usually smaller and weaker. Belgium, for example, was historically a buffer state between France and Germany, and Mongolia exists as a buffer between potentially hostile Russia and China. (A) and (C) are too large and powerful to be buffers. (D) and (E) do not serve significantly to separate potentially warring neighbors.

45. (B)

A sawah is a flooded field in rice farming often found in all the listed regions except (B), which has too dry of a climate for wet rice farming.

46. (B)

A bulk- or weight-reducing process is one in which the assembly or production process creates a product that is lower in weight or volume than the original parts. All the answer choices except copper refining are weight-gaining processes, meaning that the final product weighs more than the original parts.

47. (D)

Ukraine, the Czech Republic, Slovenia, and the Republic of Korea are so economically depressed and their birth rates—that is, the rates of natural increase—are so low that they are classified as “graying populations.” Consequently, they have very low fertility rates, extremely high doubling times, and high dependency ratios, because the younger generations are not reproducing at the levels to match the older generations, thus resulting in more dependents per worker.

48. (B)

Contagious diffusion is the spread of an innovation in a wave pattern. The spread pattern moves across space from the hearth or node to the next-closest place, regardless of the size or power of the receiving place. In Figure 1 the phenomenon, perhaps a disease, spreads from smaller cities to larger cities and then to a smaller city. Figure 2 diffuses from the larger cities to the smaller cities, even though the smaller cities are closer to the node than are the larger cities. The remainder of the choices incorrectly label the diffusion types.

49. (A)

While all the other answer choices are used to represent past behavior, the total fertility rate represents a predictive measure used to forecast how many children each woman is expected to bear. For example, the crude birth rate (B) reports how many children were born per 1,000 individuals in a society. If the total fertility rate is 3.2, demographers would predict that a woman in the fecund range would produce nearly three children during her fecund years.

50. (B)

Beginning in the 1990s the individual pieces of what was known as Yugoslavia began to devolve into independent countries, sometimes through what were violent, genocidal wars. By 2003 the only remaining piece renamed itself “Serbia and Montenegro,” which by 2006 had even split into two distinct countries. (A), (C), (D), and (E) remain independent states as of the publication of this book.

51. (D)

Subsistence farmers consume what they produce. They do not produce more than what they need, or a surplus, as (B) implies. Subsistence farming often includes raising or herding animals, as in pastoral nomadism, making (A) incorrect. Subsistence agriculture has been steadily declining with the advent of new farming technologies, though it still has a large presence in less-developed countries (C). It is most practiced in Asia, particularly Southeast Asia.

52. (B)

The Kyoto Protocol was signed in 1997 by countries that agreed to legally binding commitments to reducing harmful greenhouse gas emissions. This was an outgrowth of the World Climate Program, initiated by the United Nations in 1979. The Kyoto Protocol was simply an overture toward a solution, because the U.S. Senate did not ratify it and President George W. Bush eliminated it from the U.S. radar. (A) established laws for delimiting shared bodies of water; (C) established free-trade relations among North American countries in 1993; (D) was an economic agreement in the 1940s by Belgium, Luxembourg, and the Netherlands that set the stage for the European Union’s development; and (E) was created by the Bolsheviks in the Russian realm to spread communism throughout the world.

53. (D)

The base of Suriname's population pyramid is much wider than its top, indicating that Suriname is experiencing high growth rates, with more births than deaths. This puts Suriname around stage 2 of transition. Argentina's birth and death rates are more stabilized, placing it around stage 3 (with still some inequality); thus (A) is incorrect. The percentage of women in the reproducing (fecund) range is much higher in Suriname than in Argentina; as the pyramid shows, many more women in Suriname are between the ages of 15 and 40 than are older, making (B) incorrect. Life expectancy is higher in Argentina because it has more people at the top of its pyramid in the older ages than in Suriname, making (C) and (E) incorrect. Because the 1990s were as much as 14 years from the 2004 creation of the population pyramids, you need to look at the numbers for children 0–14 years old. Notice that the bars on the pyramid representing Suriname's children, male and female, 0–14 years of age are longer than the bars representing children aged 0–14 years in Argentina; thus (D) is the correct choice.

54. (E)

India is home to nearly 97 percent of the world's Hindu population, but the remaining percentage of Hindus live in neighboring Nepal. Pakistan and Senegal are highly Muslim; Sri Lanka is predominantly Buddhist (97 percent), and China is officially atheist.

55. (B)

This picture depicts the boulevard that was constructed in the late 19th century to model the Champs-Élysées in Paris. This Mexican boulevard was built by the Spanish emperor Maximilian, who came to power largely because of the support he had in France. In fact, the wide boulevard, architecture, and roundabout would make one think that this picture was taken in Paris. This shows the noticeable imprint by western European colonizers on the Latin American cultural landscape. (A) is the clumping of similar or related industries to benefit from their proximate locations. Mexico City was not a forward capital city (E) because it has been the seat of Mexican power.

56. (A)

Brain drain is the emigration (leaving) of well-educated members of a society for places with more opportunities suiting their needs. The Kentucky scholarship program was established to try to keep Kentucky's high-achieving high school students from migrating to universities outside the state. (B) are workers from other countries who have migrated to work temporarily in a new country. (C) is the movement within a particular region, whereas immigration (D) occurs when migrants enter a region. (E) involves an interruption in the original migration path undertaken by a migrant; essentially it is when something better comes along to prevent the migrant from completing the journey to the point he or she had planned.

57. (E)

The neighborhood effect occurs when diffusion is most rapid around the original innovator, or the first person affected by the diffusing element. Most simply, diffusion on a microscale most rapidly occurs through direct exposure to the diffusion phenomenon. (A) is the degree to which a person or place is likely to adopt the diffusing phenomenon. (B) occurs when a trait or phenomenon is adopted in a situation or context in which it should not fit, such as the diffusion of igloo-style homes to Florida. (C) occurs when the main idea or concept spreads but is changed to meet the adopters' needs. (D) is when two places or peoples independently invent the same (or very similar) invention or innovation.

58. (A)

Devolution is defined as the movement of power away from the central government in a country to its regional and local (subnational) government bodies. The movement for regional control in Northern Ireland away from U.K. control exemplifies devolution grounded in nationalism. (B) refers to the economic control that former colonial powers exert over their former political colonies. (C) are forces that unify and maintain state structures, rather than tearing down or weakening government models. (D) is the theory that individuals are a product of human structures, such as capitalism, and that humans also shape their structures. (E) is the designing of voting-district boundaries to benefit one political party over another.

59. (B)

Commercial farmers in more-developed countries are facing a strange irony: They are growing surpluses because farming efficiency has increased through improved farming technology, but demand for food at their markets is stagnant (and in some cases declining) because of low population growth (making C and D incorrect). In the United States, farmers receive government subsidies to encourage them not to grow surpluses, making (E) incorrect. (A) is incorrect because research shows that people will not switch from wheat products to corn products if the cost of wheat rises (within reason, of course).

60. (B)

Ubiquitous industries are found near their markets because of the immediacy of their products, such as a newspaper. They are not examples of (A), because footloose industries have freedom in their choice of industrial locations because they are not related to specific marketplaces and can be transported over long distances for low costs. (C) are intermediate points of trade that facilitate trade between two points or places. (D) is when a trait from one culture is adopted by another culture. (E) is an industry in which the final product weighs less than the raw materials used to create it.

61. (E)

Each answer choice except (E) is a generalization made by Ravenstein regarding human migration (human geographers consider Ravenstein's generalizations the only accepted rules on human migration). In the 1880s England was experiencing rapid urban migration, fueled by the Industrial Revolution (B). People were moving from the farms to the cities to find new opportunities. However, in all migration patterns, a reverse stream of people move in a return route—back to the farmlands, for example. It might not be as large as the stream into the city, but it is nevertheless present (A). Most migrants move small distances (C), not having the means or knowledge to leap great distances, and they usually move in steps (D), perhaps from town to town until they make it to their final destinations. However, large towns during the 1880s in England were growing more because of this massive urban migration into the cities than by rates of natural increase, thereby making (E) the correct choice in its inaccuracy.

62. (C)

The growth of populations in non-Western, peripheral countries has been the most striking change on the list, as countries such as India, South Korea, Japan, Mexico, Brazil, and China take a more prominent status on the list. In fact, cities in peripheral zones account for nearly 50 percent of cities on the list. (A) is false because Mexico City, São Paulo, Buenos Aires, and Rio de Janeiro are on the list. (B) is false because it is the second-largest city in the world as of 2007. (D) is false because annual growth averages around 15 percent. (E) is false because the average is nearly 15 million, with the largest city, Tokyo at 30 million, being far larger than the next largest, New York at nearly 17.8 million.

63. (A)

Vegetative planting is when agriculturalists cut the stems of plants and divide their roots to grow crops. It predated seed agriculture and likely originated in Southeast Asia, making (D) and (E) incorrect. (B) refers to seed agriculture, and (C) refers to truck farming.

64. (E)

The table is testing your knowledge of the definitions of arithmetic, physiological, and agricultural densities. While the arithmetic density is simply the number of people per unit of land, the physiological density measures the number of people per unit of farmland, and the agricultural density measures the number of farmers per unit of farmland. Thus, though the Dutch have the highest number of people per unit of land, their ratio of people to farmland is less than that of Egypt's. The arithmetic density of Egypt is only 70 people per square kilometer, while its physiological density is the highest at more than 3,500, indicating that most of Egypt's peoples are clustered on farmable land; this highest physiological density indicates that Egypt has more people per unit of farmland than the others, proving that it has less farmland per person than the others (statement IV). However, the Netherlands' agricultural density is much lower than Egypt's, indicating that fewer farmers are needed on the farmlands in the Netherlands than in Egypt. This suggests that the Dutch are more mechanized in their farming than are the Egyptians, because the Dutch use machines to reduce the number of farmers to do the same job (statement II). Because the data show ratios, the actual number of people in each country is not known, so statement I cannot be accepted, thereby eliminating (A), (B), and (C). Although statement III is tempting, the table does not specifically indicate any information on urban (city) settlement, so this statement is not supported directly.

65. (D)

Plantation agriculture has historically been entrenched in less-developed countries' economies, with its reliance on inexpensive labor to harvest a cash crop for sale in foreign markets. (A), (B), (C), and (E) are found in both more- and less-developed countries. Mediterranean agriculture is found primarily in the region surrounding the Mediterranean Sea, which includes North Africa. Organic agriculture (E) is sometimes found in less-developed countries, when the food is produced for foreign markets where it is sold for a price higher than people living in the countries of production could afford.

66. (A)

Cumulative causation happens when modernization and development occur in the area of initial advantage and drain the surrounding regions of investment, labor, and resources. Growth is fed at the expense of more-equalized growth patterns. (B) is the human tendency to claim a part of space and exact control over it, much like an animal marking its territory. (C) is involved when two countries share water space that does not include the 200 miles provided for in exclusive economic zones. According to the principle, the countries must divide the water space in half at the median point. (D) claims that former colonies are still dependent on their former colonial masters, in an economic, not political, sense. (E) refers to the reverse in the trend away from urban migration. Instead, in counterurbanization trends, more people move to suburbs and rural areas to escape cities.

67. (E)

World cities are extraordinarily large cities with populations exceeding 10 million. Of the cities listed, only Vienna, Austria, has a population less than 10 million (in fact, its population is less than 2 million people).

68. (C)

The multiplier effect is highly related to cumulative causation: one successful industry or a cluster of them acts as a magnet for further development and industry, with more jobs leading to more jobs, and so on. (A) is the urban development pattern that involves many core areas. (B) is a migration theory that states that large cities attract the largest numbers of immigrants and that closer places attract each other more than more-distant places. (D) is the demographic measurement of the time it will take for a population to double in size. (E) is the transition of the causes of death within each stage of the demographic transition model.

69. (B)

Multiplier leakage occurs when multinational corporations invest in and build secondary industries, such as factories, in peripheral regions and send most of the profits back to their core headquarters. This contributes to uneven development. (A) is the exponential growth of space needed to feed the growing transportation space associated with cars, trucks, and planes. (C) is the investment of multinational corporations typically in peripheral regions to build factories and export operations to feed the core's needs. (D) are the negative effects of growth poles and agglomeration caused by all the energy in development and industrial growth being focused on one area, thereby draining the surrounding and supplying regions of valuable workers and resources. (E) is the negative restructuring of the earth's physical structure by industrial processes.

70. (B)

The Mexican government established its maquiladora program in the 1960s to allow U.S. businesses to build factories on low-cost land on the Mexican side of the U.S.-Mexico border. The program was meant to employ displaced farmers in Mexico and allow U.S. industries to outsource parts of their production processes to lower-cost areas. The labor force in the maquiladoras includes many Mexican women. Although (A) may seem reasonable, that same desire has been present since before the 1960s. (C) and (D) do not exist along the border, and there is no reason for forced migration (E), though poverty and lack of jobs are push factors.

71. (E)

Nearly 41 percent of the world's population comprises farmers, and most farmers grow just enough to feed their families with no surplus. In most of Asia and Africa, more than 50 percent of the people are farmers. Intensive subsistence farming involves farming a small plot of land very intensively, or to yield high output per unit area. It is labor intensive per unit area, compared with extensive agriculture, which involves using much land.

72. (B)

Ecotourism is ecologically responsible travel that attempts not to harm the ecosystems or well-being of the indigenous people. A trail hike in a rain forest would most likely have the least impact on the local people and environment, whereas the other choices are more invasive to the local environment. Even a cruise ship (D), because it pollutes and disrupts the oceanic ecosystem, is less ecofriendly than a rain forest hike.

73. (C)

Pronatalist policies encourage people to have more children, which would lead to a higher total fertility rate, or the number of children each woman is predicted to bear in her fecund years. Higher fertility rates would not likely directly affect death rates (A) or life expectancy (B), though in the long run there could be some interaction between more babies and higher death rates. More babies would lead to higher rates of natural increase and a faster doubling time, making (D) and (E) incorrect.

74. (C)

Exurbanization is the movement out of the city to a more quiet, peaceful, rural setting. (A) and (B) represent urban migration, (D) is gentrification, and (E) is agglomeration.

75. (C)

A gas station would have a small radius from which it would draw people to use its services, hence a small range. It would also require a small population to exist, hence a small threshold population. The other answer choices would require larger populations to exist, because a small percentage of people use the services rendered by the central place functions in (A), (B), (D), and (E).

Detailed Explanations of Answers

Section II

Sample Response and Scoring Rubric for FRQ 1

Sample Response

A. The figure depicts an example of U.S. intraregional migration, which is the permanent movement within a region of a country. The largest flow by far is from the central city to the suburbs, thus indicating a net out-migration from the city.

B. British demographer Ernst Ravenstein devised several laws pertaining to internal migration within a country. (Descriptions and applications of any two of the following should be in FRQ.)

i. **Net migration amounts to a fraction of the gross migration between two places.** As seen in the figure, each of the streams has a countermigration stream, thus affecting the net migration number.

ii. **The majority of migrants move short distances.** Because of the increase of space-time compression resulting from improvements in transportation technology, modern migrants are more likely to move long distances than were migrants in Ravenstein's time. However, the migration pattern in the figure relates to Ravenstein's prediction because most migrants depicted move short distances. For example, 8 million move between the city and the suburb, a shorter distance than the approximately 1.5 million migrants moving the longer route between the city and rural areas.

iii. **Migrants who move longer distances tend to choose big-city destinations.** In this figure, the migrants moving the longest distances are moving into a "big city" destination. Technically, Ravenstein's "law" applies in this scenario. However, note that *more* migrants in the figure are moving in a counter-urbanizing trend, moving from urban areas into suburban and rural areas.

iv. **Urban residents are less migratory than inhabitants of rural areas.** The figure shows many more migrants moving from urban areas to suburban areas than it does rural residents moving into suburban and city areas. Thus, this law does not apply to the figure.

v. **Families are less likely to make international moves than young adults.** Suburbs are likely to be inhabited largely by families, while cities often attract young adults. Thus the migration pattern in the figure would seem to support Ravenstein's prediction because fewer migrants come from the suburbs than from large urban areas.

C. People feel compelled (pushed) to emigrate from a location for political, economic, and environmental reasons. Similarly, people are induced (pulled) to immigrate to a new location because of its political, economic, or environmental attractiveness. In the figure the net out-migration from the cities is most likely related to overcrowding in the central city. In this pattern migrants from these cities are moving to the suburbs because they perceive better living conditions outside the urban areas. This pattern fits into the stage-4 prediction of the demographic transition model because major U.S. cities were in stage 4 by the 1990s. After the continued expansion and urbanization of stages 2 and 3 of the model, overcrowding in the central cities led people to seek “more room” in the American suburbs of stage 4, a typical pattern in more-developed countries.

Scoring Rubric for FRQ 1

Part A: 3 points

1 point for each of the following observations:

Note: Students should note that the movement depicted is migratory, which is permanent. Other types of movements, such as cyclic and periodic may be mentioned, but the arrows indicate migration, not cyclic or periodic movement. This is defined in the question prompt.

- Net out-migration from central city
- Largest flow from central city to suburbs
- Slightly larger migration from urban to rural areas than from rural to urban

Part B: 2 points

1 point for each law stated and analyzed.

- Accurate statement of two of Ravenstein’s laws and accurate application of it to model (see each law in the sample response above)

Part C: 3 points

1 point for each of the following:

Note: Student must explain the demographic transition model mentioned to get full 3 points.

- Identification of push-pull factors:
 - Push: crowded, expensive cities
 - Pull: lifestyle and space of suburb areas
- Mention of improved transportation technology, thus allowing commuting
- Explanation of stage 4 of model

After surge of industrialization and growth of stages 2 and 3, overcrowding and expense of cities in this developed country push people to suburbs

OVERALL SCORE FOR FRQ 1

_____/ 8 points

Sample Response and Scoring Rubric for FRQ 2

Sample Response

A. *Monolingualism* is defined as a state in which only one language is spoken. Arguably, no country in the world is truly monolingual because each has a small number of speakers of different languages. One of the closest examples of a monolingual state is Japan, which has strict immigration and naturalization policies.

B. Multilingualism occurs in a state in which more than one language is in use. One example of a multilingual state experiencing conflict related to its linguistic diversity is Canada. French speakers in the province of Quebec desire a sense of autonomy and self-determination, separate from the English-speaking majority in Canada. Their identity as French speakers is a defining part of their nationalism, even leading to French-only laws within the province and a referendum movement to declare independence from greater Anglo-Canada.

Scoring Rubric for FRQ 2

PART A: 2 points

1 point for any of the following:

- Accurate definition of monolingualism—state wherein one language is spoken
- Possible examples include Japan in Asia; Uruguay and Venezuela in South America; Iceland, Poland, Portugal in Europe; Lesotho in Africa

PART B: 2 points

1 point for any of the following examples

1 point for correct explanation of relation between multilingualism and regionalism

- Example: Student must choose a state and specifically and accurately explain the linguistic diversity in the region and how that diversity contributes to regionalism or cultural division. Possible examples include the following
 - North America: Canada (French vs. English), United States (Spanish vs. English)
 - Europe: Greece (Greek vs. Turkish), Belgium (French vs. Dutch), Bosnia (Croatian, Serbian, Albanian), German (Turkish vs. German), France (French vs. Turkish and English), Switzerland (which has at least three major languages and one minor language)

OVERALL SCORE FOR FRQ 2

/ 4 points

Sample Response and Scoring Rubric for FRQ 3

Sample Response

A. Gentrification is a process of inner-city, neighborhood urban renewal. There is also a resulting social change that occurs with this injection of money into inner-city neighborhoods and the arrival (or return) of higher social or economic groups.

B. The old Werthan Mills Plant building has been purchased and remodeled into luxurious loft apartments in an inner-city neighborhood of east Nashville. This exemplifies the gentrification process, especially since the renovation has produced housing that is probably too expensive for the existing neighborhood dwellers.

C. One positive effect of gentrification is that it brings renewed money and attention to decrepit, decaying infrastructures in inner cities. New middle- and upper-income citizens come to the inner-city neighborhoods being gentrified with zeal and a desire to “beautify” and commercialize the regions, generating economic development. One negative aspect of gentrification as a solution to urban renewal is its tendency to push out the people already living in the gentrified neighborhoods. Often these people have a lower socioeconomic status and cannot afford the new high-priced housing units and shops that move in. Thus gentrification can produce greater segregation, rather than unification and integration.

Scoring Rubric for FRQ 3

PART A: 1 point

1 point for the following:

- Gentrification began in the 1970s when decaying inner-city buildings in low-income neighborhoods were targeted for renovation and remodeling by developers and families in the middle and upper socioeconomic classes.

PART B: 2 points

1 point for any of the following:

- The photos show the original factory building around 1950, just as the suburbanization movement was occurring, and its remodeled, modern version.
- Gentrification occurred when a developer moved into this inner-city neighborhood and remodeled and transformed the old factory building into expensive urban-elite dwellings.

PART C: 2 points

1 point for any of the following positive factors and 1 for any of the following negative factors:

- Positives: increased economic energy in neighborhood, more aesthetically pleasing urban landscape, new businesses developed in region, efficient use of space, alternative to urban sprawl, increase in inner-city tax base
- Negatives: alienation and “pushing out” of people already living and working in region because new housing is too expensive and new businesses cater to the rich property owners moving in, political and ideological clashes between original inhabitants and influx of new “gentrifiers,” increased segregation of racial and socioeconomic groups, avoiding fixing the inherent problems of cyclical poverty and suburban sprawl

OVERALL SCORE FOR FRQ 3

_____/ 5 points

Answer Sheet

Section I

1. (A) (B) (C) (D) (E)
2. (A) (B) (C) (D) (E)
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Use the following pages to prepare your essays.

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Models Review

Borchert's Model of Urban Evolution

Borchert created this model in the 1960s to predict and explain the growth of cities in four phases of transportation history: stage 1, the “sail wagon” era of 1790–1830; stage 2, the “iron horse” era of 1830–1870; stage 3, the “steel rail” epoch of 1870–1920; and stage 4, the current era of car and air travel that began after 1920.

Central Place Theory

Developed in the 1930s by Walter Christaller, this model explains and predicts patterns of urban places across the map. In his model, Christaller analyzed the hexagonal, hierarchical pattern of cities, villages, towns, and hamlets arranged according to their varying degrees of centrality, determined by the central place functions existing in urban places and the hinterlands they serve.

Concentric Zone Model

This model was devised in the 1920s to predict and explain the growth patterns of North American urban spaces. Its main principle is that cities can be viewed from above as a series of concentric rings; as the city grows and expands, new rings are added and old ones change character. Key elements of the model are the central business district and the peak land value intersection.

Demographic Transition Model (DTM)

In four stages of transition from an agricultural subsistence economy to an industrialized country, demographic patterns move from extremely high birth and death rates to low birth and death rates. In the process, population growth rates skyrocket and then fall again. The crude death rate first falls because of the influx of better health technology, and then the birth rate gradually falls to match the new social structure.

Epidemiologic Transition Model

Disease vulnerability shifts in patterns similar to the DTM. In the early stages, plague and pestilence spread as a result of poor medical technology. As industrialization proceeds, diseases related to urban life spread. In later stages, diseases once thought eradicated reappear as more-developed societies come into easier contact with less-developed regions struggling with the more primitive diseases, such as smallpox and the bubonic plague. Leading causes of death in later stages are related to diseases associated with aging, such as heart disease.

Gravity Model of Spatial Interaction

When applied to migration, larger places attract more migrants than do smaller places. Additionally, destinations that are more distant have a weaker pull effect than do closer opportunities of the same caliber.

Least Cost Theory

This is Alfred Weber's theory of industrial location, explaining and predicting where industries will locate based on cost analysis of transportation, labor, and agglomeration factors. Weber assumes an industry will choose its location based on the desire to minimize production costs and thus maximize profits. Drawbacks to the model include its assumption of an immobile and equal labor force.

Locational Interdependence

Hotelling's theory of locational interdependence asserts that an industry's locational choices are heavily influenced by the location of their chief competitors and related industries. In other words, industries do not make isolated decisions on locations without considering where other, related industries exist.

Multiple-Nuclei Model

Developed in the 1950s, this model explains the changing growth pattern of urban spaces based on the assumption that growth occurred independently around several major foci (or nodes), many of which are far away from the central business district and only marginally connected to it.

Rostow's Modernization Model

Developed in the 1950s, this model exemplifies the liberal development ideology, as opposed to structuralist theory. Under the model, all countries develop in a five-stage process. The development cycle is initiated by investment in a takeoff industry that allows the country to grow a comparative advantage, which sparks greater economic gain that eventually diffuses throughout the country's economy. Drawbacks to this model include its not identifying cultural and historic differences in development trajectories because it is based on North American and western European development histories.

Sector Model

This model predicts and explains North American urban growth patterns in the 1930s in a pattern in which similar land uses and socioeconomic groups clustered in linear sectors radiating outward from a central business district, usually along transportation corridors.

Urban Realms Model

This model was developed in the 1970s to explain and predict changing urban growth patterns as the automobile became increasingly prevalent and large suburban "realms" emerged. The suburban regions were functionally tied to a mixed-use suburban downtown, or mini-CBD, with relative independence from the original CBD.

Von Thünen Model

Developed by German geographer Johann Heinrich von Thünen, this model explains and predicts agricultural land use patterns in a theoretical state by varying transportation cost. Given the model's assumptions, the pattern that emerges predicts more-intensive rural land uses closer to the marketplace, and more-extensive rural land uses farther from the city's marketplace. These rural land use zones are divided in the model into concentric rings.

Zelinsky Model of Migration Transition

Migration trends follow demographic transition stages. People become increasingly mobile as industrialization develops. More international migration is seen in stage 2 as migrants search for more space and opportunities in countries in stages 3 and 4. Stage-4 countries show less emigration and more intraregional migration.