

PART I

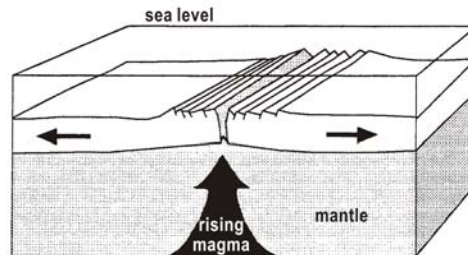
Instructions: Shade the letter of the correct answer on the machine scorable answer sheet provided.

SECTION A

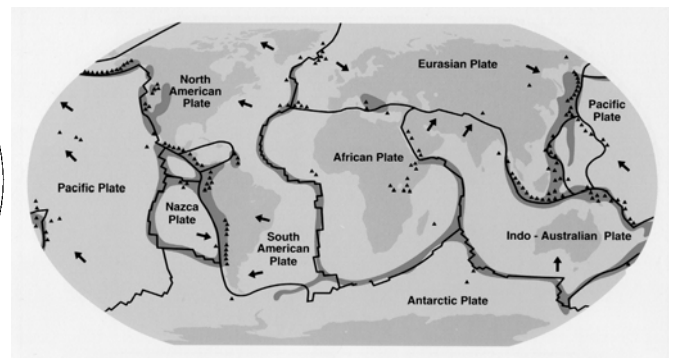
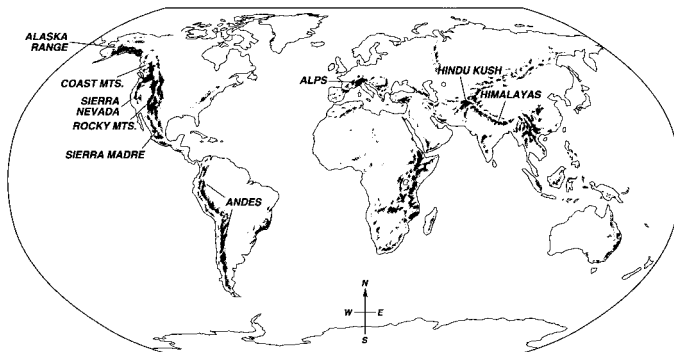
TOTAL VALUE: 42%

Instructions: Do ALL Questions in Part I, Section A.

1. According to the graphic below, the movement of the sea floor is an example of what force?

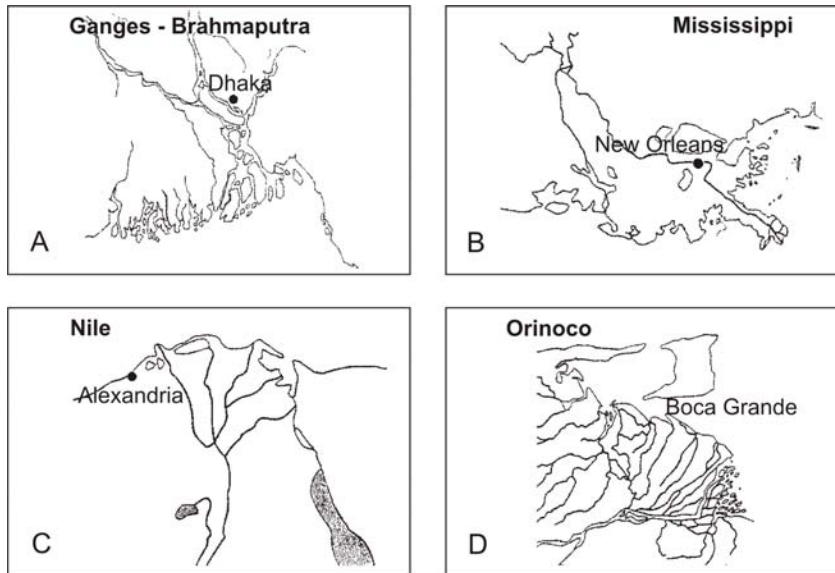


- (A) compressional
(B) seismic activity
(C) subduction
(D) tensional
2. What are the characteristics of a shield volcano?
- (A) broad; flat cone; no ash and cinders; thin liquid lava
(B) broad; high elevation; explosive and quiet activity
(C) explosive; gentle slope; layers of ash and cinders
(D) explosive; symmetrical; steep sides
3. According to the maps below, which is true of the location of world mountain ranges?



- (A) found only in the southern hemisphere
(B) found only on west side of continents
(C) generally found along plate boundaries
(D) generally found to have a N-S direction
4. Which process of chemical weathering involves the dissolving of minerals in rock by water or carbonic acid?
- (A) exfoliation
(B) hydrolysis
(C) oxidation
(D) solution

5. Which river best illustrates Digitate Delta?

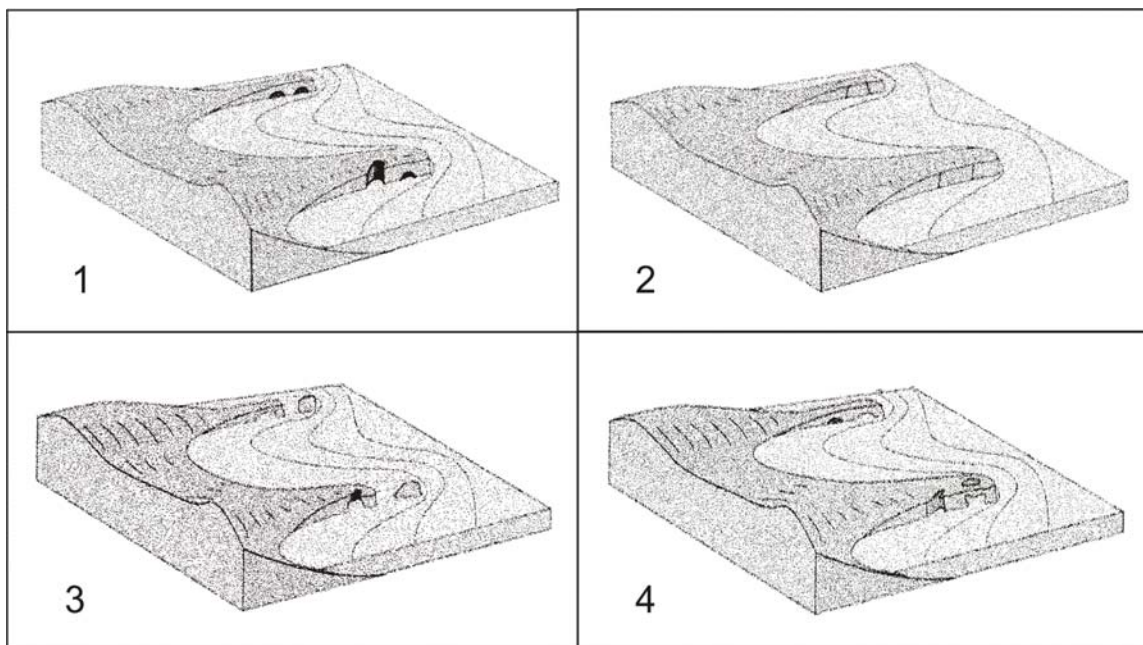


- (A) Ganges - Brahmaputra
- (B) Mississippi
- (C) Nile
- (D) Orinola

6. Which is best defined as a glacial valley flooded by sea water?

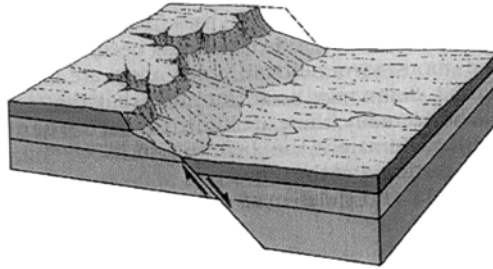
- (A) drumlin
- (B) fiord
- (C) hanging valley
- (D) terminal moraine

7. According to the graphic below, which sequence illustrates how a sea stack is formed?

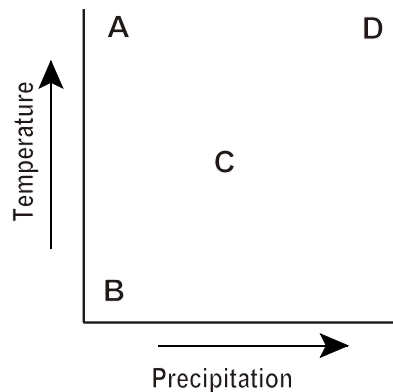


- (A) 1 → 2 → 3 → 4
- (B) 2 → 1 → 4 → 3
- (C) 3 → 4 → 1 → 2
- (D) 4 → 1 → 3 → 2

8. What type of fault is illustrated in the graphic below?

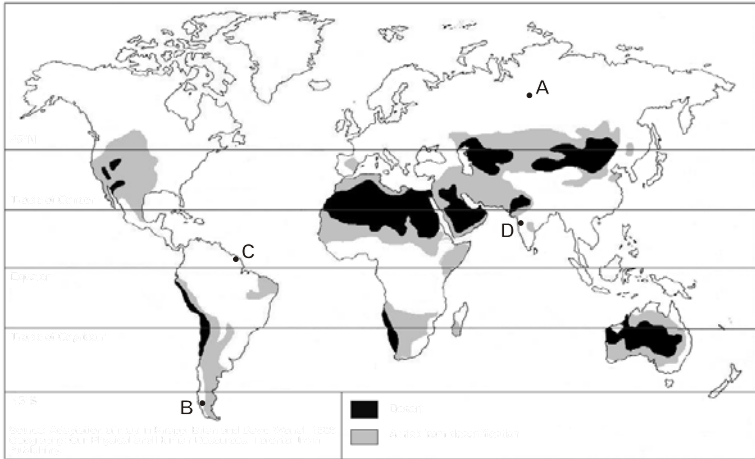


- (A) normal
(B) overthrust
(C) reverse
(D) transform
9. Chemical weathering would be most active in which location on the graph?



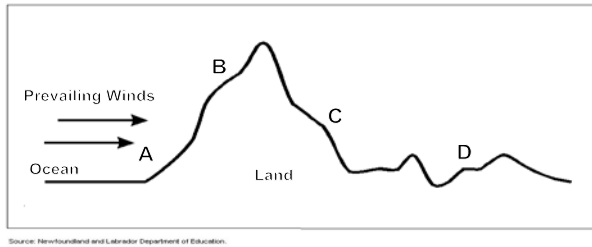
- (A) A
(B) B
(C) C
(D) D
10. What term refers to Earth's orbit around the sun?
- (A) equinox
(B) revolution
(C) rotation
(D) solstice
11. Which best describes the winter solstice in the Northern Hemisphere?
- (A) noontime sun is directly overhead at its farthest point north
(B) noontime sun is directly overhead at its farthest point south
(C) occurs at the midpoint of winter
(D) occurs twice a year
12. What accounts for differences in temperature as the seasons change?
- (A) directness of the sun's rays and length of days
(B) sun's closeness to Earth and regular variation in the sun's output
(C) longer days and the sun is closer to Earth
(D) regular variation in the sun's output and more direct sun's rays

13. When it is Autumn in Newfoundland, which location would have Spring?



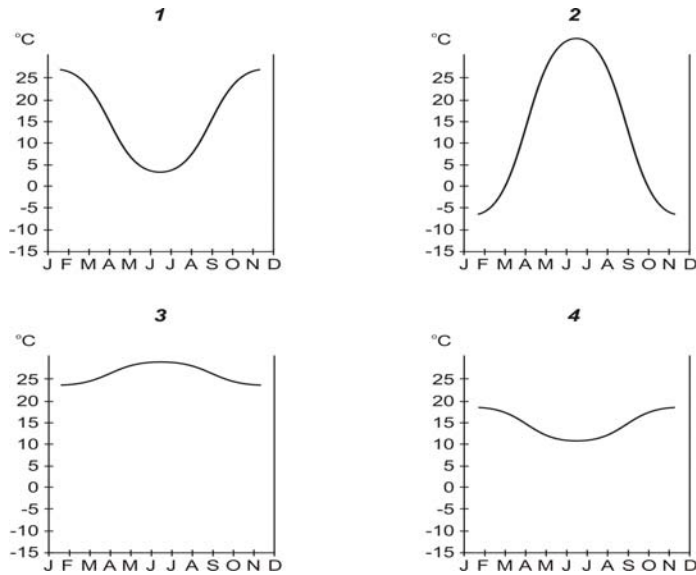
- (A) A
- (B) B
- (C) C
- (D) D

14. Which location has the highest precipitation and lowest average temperature?



- (A) A
- (B) B
- (C) C
- (D) D

15. Which sequence identifies the North to South arrangement of temperature profiles?



N → → → S

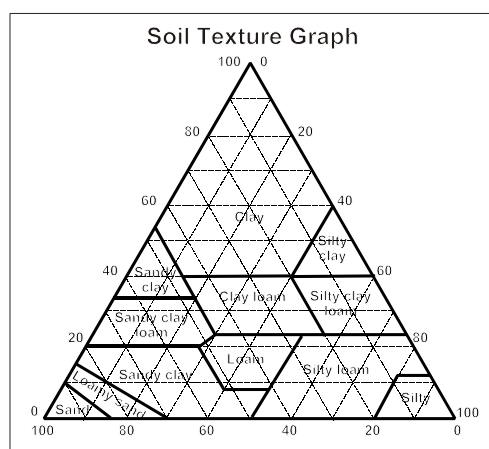
- (A) 1 → 4 → 3 → 2
- (B) 2 → 3 → 4 → 1
- (C) 3 → 1 → 2 → 4
- (D) 4 → 1 → 3 → 2

16. Which best defines a prevailing wind?
- (A) direction
 - (B) dryness
 - (C) force
 - (D) steadiness
17. Which description of Earth's temperature in the Northern Hemisphere is best?
- (A) Latitude has no effect on temperature.
 - (B) The higher the latitude, the higher the temperature.
 - (C) The lower the latitude, the higher the temperature.
 - (D) The lower the latitude, the lower the temperature.
18. How does cloud cover affect the range of temperature from day to night?
- (A) Clouds absorb the sun's energy which decreases the range.
 - (B) Clouds absorb the sun's energy which increases the range.
 - (C) Heat is prevented from escaping the atmosphere which decreases the range.
 - (D) Heat is prevented from escaping the atmosphere which increases the range.
19. Which term describes the interactions between living organisms and non-living environmental factors?
- (A) community
 - (B) ecosystem
 - (C) food chain
 - (D) food web

20. Which ecosystem is described in the statement below?

cold temperature all year; small amount of precipitation; short summer;
long winter; contains lichens and short grasses

- (A) desert
 - (B) mountain
 - (C) savanna
 - (D) tundra
21. According to the triangular graph, which soil texture would be most suitable for farming?



- (A) 10% sand; 10% clay; 80% silt
- (B) 25% sand; 65% clay; 10% silt
- (C) 33% sand; 33% clay; 34% silt
- (D) 65% sand; 15% clay; 20% silt

22. Why would the 3rd level consumer in a food pyramid have a relatively large concentration of toxins?
- (A) Higher level organisms need to consume more food for energy.
(B) Higher level organisms need to consume less food for energy.
(C) Lower level organisms are more resistant to toxins.
(D) Lower level organisms are less resistant to toxins.
23. Which refers to the sowing of seeds in a farming operation?
- (A) input
(B) output
(C) process
(D) product
24. Which is a natural input in a farming operation?
- (A) climate
(B) labour
(C) pesticide
(D) technology
25. Which set of farming components is correct?
- | | Input | Process | Output |
|-----|-----------|------------|------------|
| (A) | ploughing | pesticide | potatoes |
| (B) | seeds | ploughing | labour |
| (C) | soil | irrigation | vegetables |
| (D) | weeding | seeding | rice |
26. Which human factor would be most important when making a decision to recover offshore gas?
- (A) age of worker
(B) cheap manual labour
(C) highly skilled labourers
(D) large pool of workers
27. Which farming operation is described in the scenario below?
- Mr. Smith has a mixed vegetable farm which specializes in potatoes, carrots, and turnip, and employs 10 workers.
- (A) agribusiness
(B) commercial
(C) shifting cultivation
(D) subsistence

28. Which form of agriculture is usually associated with cheap land, and with low inputs of capital and labour?
- (A) agribusiness
 - (B) extensive
 - (C) intensive
 - (D) shifting

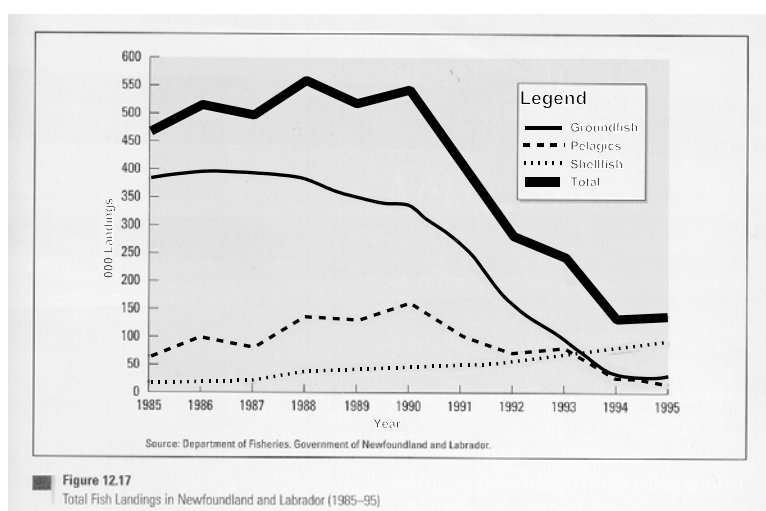
29. Which farming method is best described in the scenario below?

McCains is a self-sufficient farming operation that produces its own inputs and maintains its own processing facilities and marketing division.

- (A) agribusiness
 - (B) commercial
 - (C) shifting cultivation
 - (D) subsistence
30. According to the information below, what will be the effect on the marine food web of decreased capelin exports ?

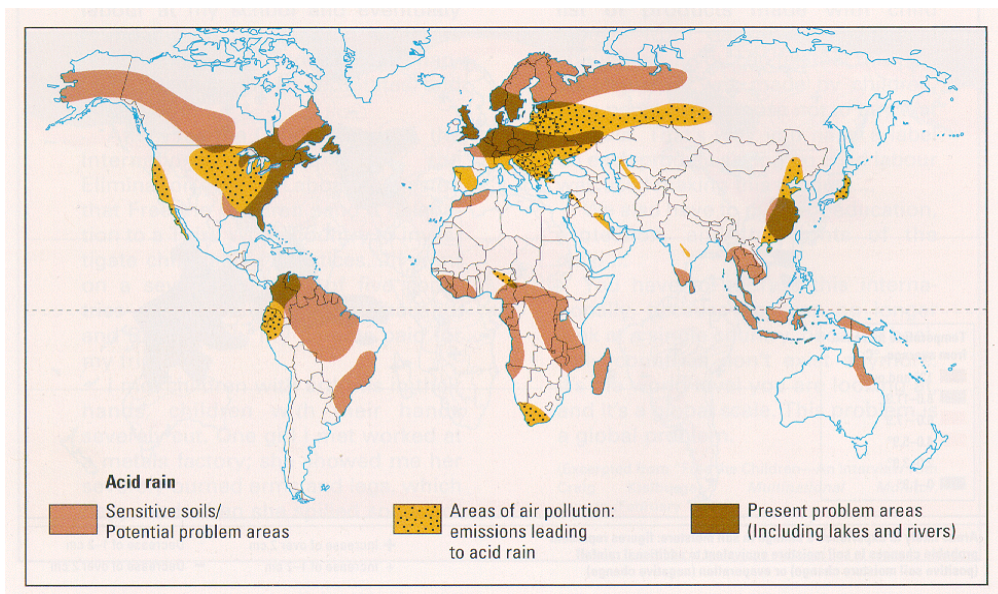
Capelin eat shrimp and krill. The favourite food for cod is capelin. Over the past 10 years, exports of capelin to markets have been steadily declining due to decreased demand.

- (A) Capelin stocks will decrease.
 - (B) Cod stocks will decrease.
 - (C) Krill stocks will increase.
 - (D) Shrimp stocks will decrease.
31. Which timber harvesting practice would an environmentalist most likely recommend?
- (A) block cutting
 - (B) clear cutting
 - (C) selective cutting
 - (D) strip cutting
32. According to the information provided in the graph below, what statement best describes fish landings since 1985?



- (A) Groundfish landings have steadily increased.
- (B) Pelagic landings have increased.
- (C) Shellfish landings have steadily increased.
- (D) There has been a decline in all fish stocks.

33. Which is a human input in manufacturing?
- (A) capital
 - (B) climate
 - (C) nickel
 - (D) water
34. Which industry uses more human input than machine input?
- (E) capital intensive
 - (B) labour intensive
 - (C) market oriented
 - (D) resource oriented
35. Which is an example of a heavy industry?
- (A) bicycle manufacturing
 - (B) clothing manufacturing
 - (C) shipbuilding
 - (D) toy manufacturing
36. Which would be considered resource oriented?
- (A) airplane assembly
 - (B) automobile assembly
 - (C) paper production
 - (D) soft drink production
37. According to the graphic below, which is the most industrialized?



- (A) Australia
 - (B) Eastern Asia
 - (C) South America
 - (D) Western Europe
38. Which sector involves the sale of goods and services?
- (A) primary
 - (B) secondary
 - (C) tertiary
 - (D) quaternary

39. According to the table below, which set of conditions would indicate the most economically developed country?

	% employed in primary sector	% employed in secondary sector	% employed in tertiary sector
(A)	43.2	5.9	50.9
(B)	56.0	20.8	23.2
(C)	54.7	18.7	26.6
(D)	8.6	18.3	73.1

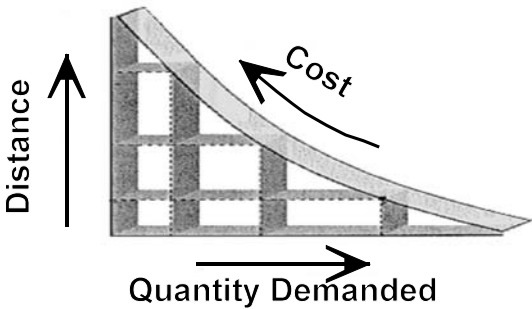
40. Which Per Capita GNP (US \$) would indicate the most economically developed country?

- (A) \$ 600
- (B) \$ 2900
- (C) \$ 20 200
- (D) \$ 12 000

41. Which is an example of a public tertiary activity?

- (A) bank teller
- (B) hair stylist
- (C) taxi driver
- (D) teacher

42. According to the graph below, which affects the cost of groceries?



- (A) as distance increases, the cost increases
- (B) as quantity demanded increases, the cost increases
- (C) distance has no effect on cost
- (D) quantity demanded has no effect on cost

SECTION B

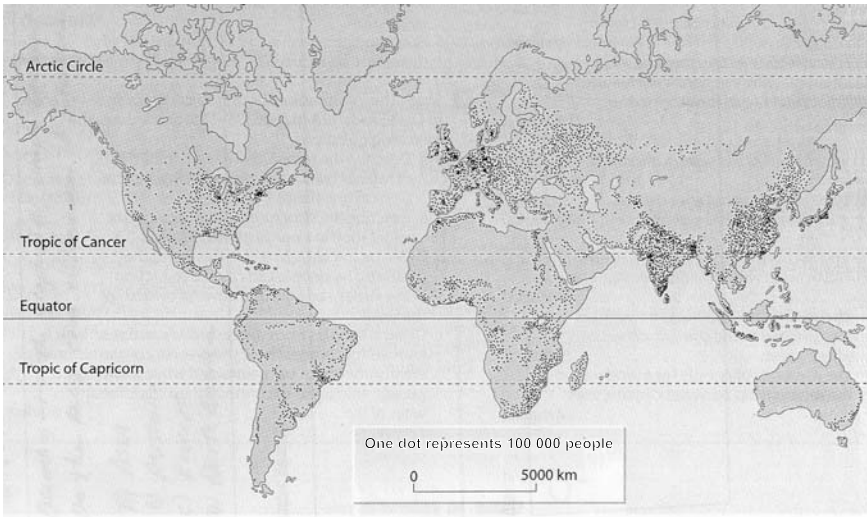
TOTAL VALUE: 8%

Do only ONE of the Units in Section B

Either: Unit 6 - Population Distribution and Growth (43 - 50)
Or: Unit 7 - Settlement and Urbanization (51 - 58)

Unit 6 - Population Distribution and Growth

43. Which term best describes a country with a population of 28 846 700 and a land area of 9 970 600 km² ?
- (A) densely populated
(B) evenly distributed
(C) sparsely populated
(D) unevenly distributed
44. According to the graphic below, which continent has the most even distribution of population?



- (A) Asia
(B) Australia
(C) Europe
(D) North America
45. According to the table below, what generalization can be made regarding population growth rate and social/ economic conditions?

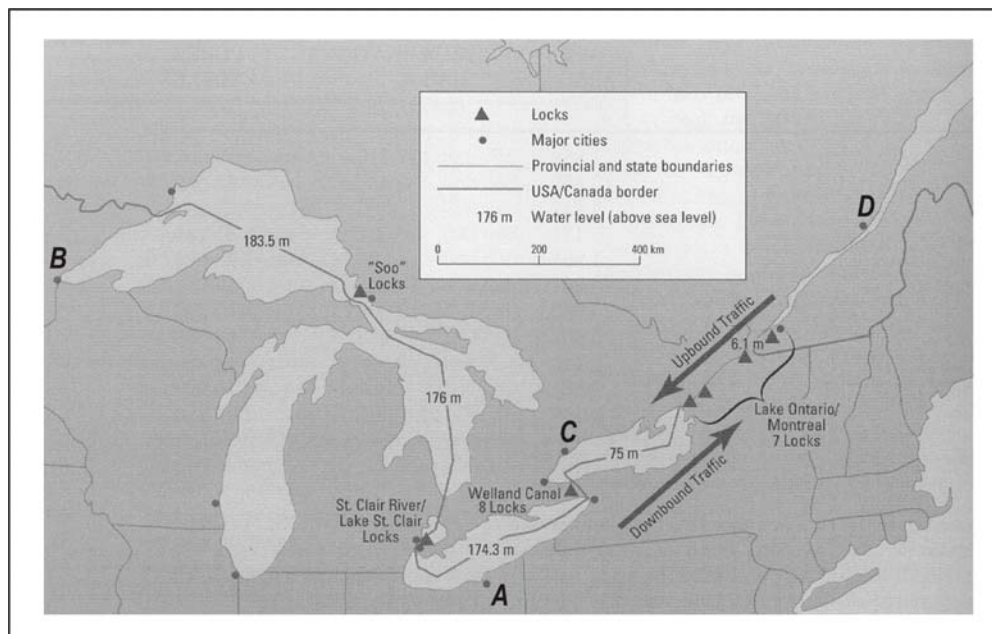
1996 - Social Economic Conditions					
Country	Population Growth Rate	GNP/Capita (US \$)	Life Expectancy (in years)	Literacy (% of population)	Persons per phone
Ecuador	28.9	4100	71	90	4.1
Japan	5.0	21 300	80	99	1.9
Sweden	2.4	20 100	78	99	1.2
United States	9.3	27 500	76	97	1.4

- (A) If population growth rate is low, standard of living is high.
(B) If population growth rate is low, standard of living is low.
(C) If population growth rate is high, standard of living is high.
(D) If population growth rate is high, standard of living is low.

46. In a given year, there were 355 672 live births and 410 271 deaths. Which term refers to the overall result of this trend?
- (A) actual decrease
 - (B) actual increase
 - (C) natural decrease
 - (D) natural increase
47. Which is used to calculate natural population change?
- (A) births - deaths
 - (B) (births + immigration) - (deaths + emigration)
 - (C) population change / original population X 100
 - (D) population / land area
48. Which defines actual population change?
- (A) net change due to births, deaths, immigration, and emigration only
 - (B) net change due to births and deaths only
 - (C) net change due to immigration and emigration only
 - (D) net change due to births and emigration only
49. Which would be used by a government to trace patterns of migration in a country?
- (A) birth rates
 - (B) census
 - (C) immigration laws
 - (D) population pyramid
50. Which refers to the movement of people into a country or region?
- (A) actual change
 - (B) emigration
 - (C) immigration
 - (D) natural change

Unit 7 - Settlement and Urbanization

51. Which is a characteristic of a high population density area?
- (A) low crime rate
 - (B) limited shopping opportunities
 - (C) municipal taxes are low
 - (D) size of most building lots is small
52. Which is the lowest order good or service in the list below?
- (A) cars
 - (B) hairdressing
 - (C) plasma television
 - (D) medical specialist
53. Where are buildings located in a community with a loose-knit settlement shape?
- (A) along several transportation routes
 - (B) positioned close together
 - (C) primarily along one road or other transportation system
 - (D) scattered over a large area
54. Which type of settlement shape is most likely to occur near a river?
- (A) compact
 - (B) composite
 - (C) linear
 - (D) loose knit
55. Which defines situation?
- (A) the distinct features or qualities of a general geographical area
 - (B) the distinct features or qualities of a specific location
 - (C) the setting or position of a city as it relates to the capital city
 - (D) the setting or position of a city as it relates to other places
56. According to the map below, which letter indicates a head of navigation site?



- (A) A
- (B) B
- (C) C
- (D) D

57. Which best describes urbanization?
- (A) increase in a city's physical size
 - (B) increase in number of people living in cities
 - (C) movement of people from cities to small towns
 - (D) movement of people from other countries
58. Why is land use planning so important in large cities?
- (A) control the development of intersections which have crosswalks
 - (B) control the nature and direction of development
 - (C) placement of bus stops in appropriate areas
 - (D) placement of municipal garbage collection schedules in different zones

PART II

SECTION A

TOTAL VALUE: 8%

Instructions: Do ALL Questions in Part II, Section A.

Constructed Response

4 marks

Value

4 59. Using an example, explain what effect the introduction of a new organism in an ecosystem would have on that ecosystem?

[illegible]

Value

4 60. As a scientist employed by the Department of Fisheries, propose an argument for the development of an aquaculture sector of the fishery.

[illegible]

Do only ONE of the Units in Section B

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Either: Unit 6 - Population Distribution and Growth
Or: Unit 7 - Settlement and Urbanization

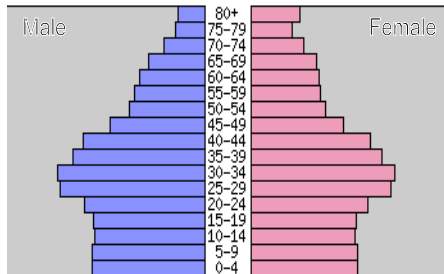
Or: Unit 7 - Settlement and Urbanization

Unit 6 - Population Distribution and Growth

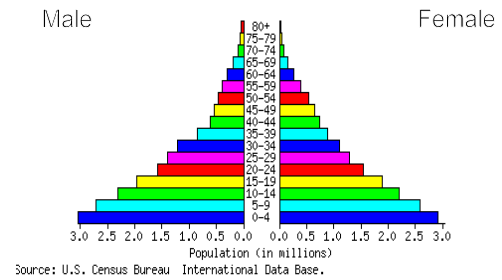
Value

4 61. Based on the population data and your geographical knowledge, which country (Country A or B) should allow migrants admission. Give two reasons for your answer.

Country A



Country B

[illegible]

Unit 7 - Settlement and Urbanization

Value

4 62. Choose any geographical location and discuss the **physical characteristics** that give rise to this particular type of settlement site. Identify the type of settlement site.

PART II, SECTION C

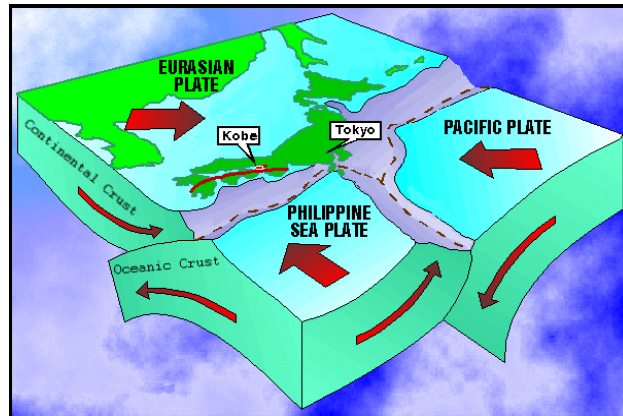
Instructions: Part II, Section C consists of two case studies. Do ALL questions in this section.

Case Study1 Units 1 - 5

The Great Hanshin Earthquake (Kobe -1995)

On Tuesday, January 17th 1995, at 5.46 a.m. (local time), an earthquake of magnitude 7.2 on the Richter Scale struck the Kobe region of south-central Japan. This region is the second-most populated and industrialized area after Tokyo, with a total population of about 10 million people. The ground shook for only about 20 seconds but in that short time, over 5,000 people died, over 300,000 people became homeless and damage worth an estimated \$150 billion dollars was caused to roads, houses, factories and infrastructure (gas, electric, water, sewage, phone cables, etc).

Figure 1



The Effects of the Earthquake

The immediate effects of the earthquake are known as primary effects. They include the collapse of buildings, bridges and roads due to the shaking of the crust. During the 20 second earthquake, the ground moved up to 50 centimetres horizontally and up to 1 metre vertically. Some of the deaths were caused by the primary effects. The secondary effects included the fires that broke out all over the city of Kobe, the congestion and chaos on the roads, the closure of businesses and the problem of homelessness. Many more people died in the fires that followed the earthquake.

Many of the older, wooden houses completely collapsed. Fire, triggered by broken gas pipes and sparks from severed electrical cables, caused a huge amount of damage, destroying at least 7,500 wooden homes. Office blocks built in the 1960s of steel and concrete frequently collapsed in the middle so that a whole floor was crushed but the rooms above and below remained intact. Modern buildings, designed to be earthquake proof, did quite well on the whole and suffered little damage, although some were left standing at an angle when the ground beneath them liquefied.

Figure 2



Figure 3



The earthquake caused massive damage to the communication and transportation infrastructure facilities. Debris choking streets was just one of the coincidences that made this earthquake so deadly. Almost all utilities, roadways, railways, the port, and other lifelines to the city center suffered severe damage, greatly delaying rescue efforts. Most lifelines in Kobe were constructed 20-30 years ago, before the most modern construction standards were put into practice. The destruction of lifelines and utilities made it impossible for firefighters to reach fires started by broken gas lines. Large sections of the city burned, greatly contributing to the loss of life. Several sections of motorway, many of which were built above the ground on tall concrete stilts, collapsed or toppled sideways. Railway lines were buckled and many stations damaged. At the port, cranes tilted or fell and 120 (out of 150) quays where ships were moored were destroyed. Port buildings were also badly damaged in many places.

Figure 4



As in most of Japan, much of Kobe’s industry was concentrated near the port on reclaimed land. Strong ground movements led to settlement and liquefaction* in these areas and damage to industry was severe. The difficulties of transporting raw materials and finished goods to, from, and within the region also caused great problems for industries such as Panasonic and Mitsubishi. Industries affected include shipbuilding, steelworks, breweries, pharmaceutical, computer and consumer goods firms.

Original Port



Port in 1998



How did the authorities cope with the earthquake?

Japan prides itself on being well prepared for earthquakes. Most new buildings and roads are designed to be earthquake proof, schools and factories have regular earthquake drills, etc. As it turned out, however, things did not go according to plan. Many older buildings collapsed or caught fire. This led to many blocked roads and much homelessness. Telephones and other communication services were put out of action making communication slow and difficult. Electricity and water supplies were badly damaged over large areas. This meant no power for heating, lights, cooking, etc. Clean, fresh water was in short supply. The government and city authorities were criticized for being slow to rescue people and for not finding enough emergency accommodation.

* liquefaction: The act or operation of making or becoming liquid; especially, the conversion of a solid into a liquid by the sole agency of heat.

Value

4	63.	Give two examples to show how the site conditions negatively impact the port region of Kobe.
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6

[illegible]

CASE STUDY 2

River Deltas, The Life of Bangladesh.

The physiography of Bangladesh is characterized by two distinctive features - a broad deltaic plain and a small hilly region crossed by swiftly flowing rivers. The alluvial soils in the Bangladesh plain are generally fertile and are enriched with heavy silt deposits carried downstream during the rainy season. Like other river deltas, Bangladesh is a very fertile place. Its soil is made up of silt and mud that has washed down from the mountains over millions of years.

The River System

The rivers of Bangladesh mark both the physiography of the nation and the life of the people. About 700 in number, they generally flow south. The larger rivers serve as the main source of water for cultivation and as the principal arteries of commercial transportation. The rivers also provide fish, an important source of protein. Flooding of the rivers during the monsoon season causes enormous hardship and hinders development, but fresh deposits of rich silt replenish the fertile but overworked soil. Thus the great river system is at the same time the country's principal resource and its greatest hazard.

The river systems of Bangladesh that drain excess monsoon rainfall into the Bay of Bengal can be divided into five major networks. The first four are connected but the fifth river system, unconnected to the other four, is the Karnaphuli. It cuts across hills and runs rapidly downhill through steep valleys to the west and southwest and then to the sea. The Karnaphuli Reservoir and Karnaphuli Dam are located in this area. The dam impounds the Karnaphuli River's waters in the reservoir for the generation of hydroelectric power.

The river and delta regions also provide fish that supply more than 80% of the animal protein in the Bangladesh diet. Most commercial fishermen, working under primitive and dangerous conditions, find it difficult to make a living. They use primitive methods such as weighted throw nets, spears, bamboo traps, and bare hands. The coast of Bangladesh with its suitable ranges of salinity, tide, water temperature, and other local favourable conditions like climate, skilled labour and availability of wild fry, make it a perfect area for the cultivation of fish species such as shrimp.

Deltaic Influence

Over thousands of years, people in this country have learned how to live with rivers and have adjusted their lives to the deltaic conditions of the land. In settling on flood plains, they always sought out high patches of land to construct dwellings and used the rest for farming. When such high patches were not available, they dug ditches and used the excavated earth to elevate land on which to construct houses.

The mode of transportation was also adjusted to the deltaic conditions. In the dry season, people walked right on the floodplains along ails¹. During the rainy season, when floodplains were inundated, they used boats. Each household in the floodplain would have at least one boat. The ancestors did not try to put up too many roads on the floodplains. In this, they were following the principle of 'least resistance'. They knew that roads and dykes obstructed free passage of water and therefore aggravated floods. This explains why we find so many ancient manmade khals² but too few ancient roads. These khals served as important avenues for inland transportation.

The cropping pattern was also intricately adjusted to the deltaic conditions. Through a process of natural selection, the people of Bangladesh developed the amazing varieties of bona aman³, which can grow twenty feet tall or even higher to withstand deep flooding. These miraculous paddy stalks just float in water and can grow up to a foot in twenty-four hours just to keep pace with the fast rising level of flood water. These capabilities of bona aman are yet to be matched by anything produced by modern plant breeding. Bangladeshi farmers also developed ropa aman⁴ to adjust to the brief time period that is usually available between harvest and arrival of floodwater. Similarly, Bangladeshi farmers developed many varieties of boro rice and other rabi crops to suit the deltaic conditions of the country.

Because the deltas are so fertile and the rivers provide water for irrigation , most of the land area in Bangladesh is used for agriculture. Approximately 82% of the country's population live in rural areas and sixty-five percent are employed in agriculture as compared to twenty-five percent employed in the service industry. So virtually all of them make their living exclusively or substantially from agriculture.

- ¹ ails: strips of built up land
- ² khals: bodies of water
- ³ bona aman: plant
- ⁴ roma aman: plant

4 66. With reference to the case study and your geographical knowledge, explain the relationship between the quality of life indicators and the type of farming operation that exists in Bangladesh.

[illegible]

Value

4

67. With reference to the case study and your geographical knowledge, explain two changes that could be made to the fishing industry in Bangladesh to make it more economically viable. Explain the positive benefits of the two changes you suggested.

Value

6

68. “*The Karnaphuli Dam provides several economic opportunities for growth but also poses many risks.*” Using environmental and economic evidence from the case study and your geographical knowledge, evaluate the validity of this statement.

SECTION D

Do only ONE of the Units in Section D

Either: Unit 6 - Population Distribution and Growth
Or: Unit 7 - Settlement and Urbanization

CASE STUDY 3

African Demographics in an Urban Millennium

The turn of this century may well be remembered as the beginning of the "Urban Millennium" as most people will live in urban areas for the first time in human history starting in 2007. This phenomenon is driven by people seeking a better quality of life, but it is happening in two distinctly different ways. Urbanization in wealthy countries tends to sprawl outward into suburbs, whereas in poorer countries urban growth is concentrated around highly populated urban cores. As people flee the war and famine of rural areas, they are coming to the world's cities in search of better economic and social opportunities at a staggering rate.

The world's population is estimated to increase by over 2 billion people in the next 30 years. The United Nations projects that urban areas will absorb the majority of that growth, with urban populations jumping from 2.9 billion in 2000 to 5 billion in 2030. Mega-cities - urban areas of 10 million people or more - are a symbol of that growth. By 2015, the world will have 23 mega-cities; 19 of them will be in developing nations.

A History of Urbanization

The growth of cities is not necessarily a new phenomenon. Half of all Americans live in cities with over one million people, and three quarters choose to live in urban areas. Additionally, suburbs are growing at unprecedented rates. Once serving as "bedroom communities" for those working in city centers, many suburbs now exist as cities in their own rights, with their own downtown areas, jobs and entertainment outlets.

Like the United States, Europe has long been an urbanized continent, with sprawling outward growth rather than an influx of rural migration. Lacking the large cities of many less developed countries, one half of Europe's urban population is concentrated in suburbs of less than 50,000 residents, and only one quarter live in cities larger than 250,000. Even by 2015, no European city is expected to join the list of mega-cities.

Population Trends in the Developing World


Most of the world's population growth will occur in developing countries, and in those countries there is a growing trend toward urbanization. The percentage of Africans living in urban areas is expected to increase by 25% between 2000 and 2025. Lagos, Nigeria, Africa's largest city with more than 13 million inhabitants, offers a classic example of the history and pattern of the urbanization phenomenon in the developing world. After the influx of refugees from nearby nations at the end of their 1967-1970 civil war, Lagos is still experiencing a population boom nearly thirty-five years later. As a result, Lagos is not only Africa's largest city, but one of

Nigeria at a Glance

With a population of 127 million, Nigeria is the most populous country in Africa and one of the fastest-growing populations in the world. The total fertility rate is very high, at 5.8 children per woman, and the annual population growth rate is 2.8%—a rate that is undermining the country’s development and affecting the entire region. At this pace, Nigeria’s population will increase to 303 million by 2050. Almost 50% of the population is under the age of 15. Literacy rates for this group are below 40%.

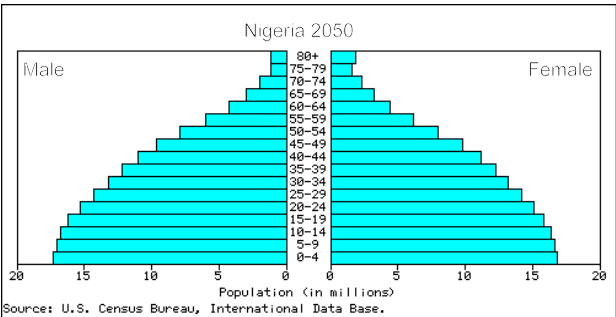
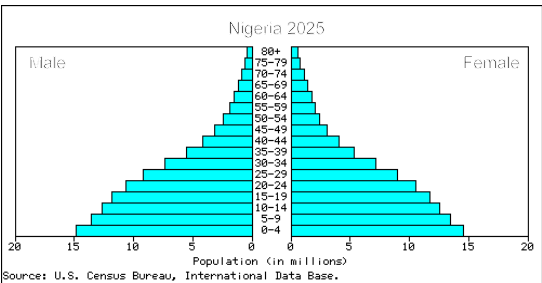
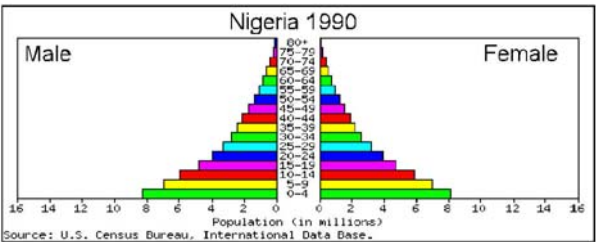
Compounding the high growth rate, Nigeria currently has one of the lowest levels of modern family planning use in the world. The current modern contraceptive prevalence rate, 9%, reflects a need to implement an effective, sustainable reproductive health program.

Source: 2001 World Population Data Sheet of the PRB



the world's largest urban centres. While 90% of the residents have access to electricity, other resources are scarce. Although the city lies on the Gulf of Guinea, and is intersected by canals and navigable waterways, children are seen selling plastic bags of water on street corners because of a water shortage. The city's roads are some of the world's most congested, leading to high levels of air pollution and noise.

Although Nigeria was one of the first countries in Africa to try directly controlling the number of children a couple should have, it is still struggling with family planning. Like most African governments, the Nigerian government is a little apprehensive to create a population control



one-ninth of the couples in Nigeria use birth control, but only after reaching their desired family size. The other eight-ninths of Nigerian couples use birth control to prevent premarital or extramarital conception. Unfortunately, many Nigerian women do not have the choice of using birth control if their husbands are against it. The choice of family size is commonly considered the sole decision of the husband's. In Ibadan, Nigeria one hundred woman were surveyed about their role in the home. Not one woman believed that she had any say in the childbearing decision. This belief was also held among the educated and working class women.

In an effort to slow Lagos's growth, the Nigerian government moved the nation's capital to the central Nigerian city of Abuja in 1991. Since many governmental offices stayed in Lagos, however, the move barely reduced the rate. Although urbanization often means an increase in the quality of life for millions of people, it can come with a heavy environmental price. Much of the urban population influx in developing countries is a result of social disruption in rural areas which brings in people starved of basic necessities like food and health care. Many city infrastructures are poorly equipped to handle the demands of this increased population, and conflicts over land, energy and water will continue. In developed countries, urbanization leads to increased energy consumption and global warming, as well low social investment in local communities. As population rises, urban growth is inevitable--the solutions cities create to deal with their rising populations will characterize how well our growing cities function at the end of this "Urban Millennium."

Other Cities in Nigeria (2000)	Population (millions)	The World's 10 Largest Cities in 2000				The World's 10 Largest Cities in 2020				%Change from 2000
		Rank	City	Country	Pop(millions)	Rank	City	Country	Pop(millions)	
Kano	3.2	1	Tokyo	Japan	26.4	1	Bombay	India	28.5	53.2%
Ibadan	3	2	Bombay	India	18.6	2	Tokyo	Japan	27.3	3.4
Kaduna	1.45	3	Mexico City	Mexico	18.3	3	Lagos	Nigeria	26.5	87.9
Port Harcourt	1	4	Sao Paulo	Brazil	18	4	Dhaka	Bangladesh	24	86
		5	New York	U.S.A.	16.7	5	Karachi	Pakistan	21.7	76.4
		6	Lagos	Nigeria	14.1	6	Sao Paulo	Brazil	21.3	18.3
		7	Calcutta	India	13.2	7	Mexico City	Mexico	19.6	7.1
		8	Los Angeles	U.S.A.	13.2	8	Jakarta	Indonesia	19.4	70.2
		9	Shanghai	China	13	9	Calcutta	India	18.8	42.4
		10	Buenos Aires	Argentina	12.7	10	Delhi	India	18.5	54.2

Unit 6 - Population Distribution and Growth

Value

4 69. With reference to the case study and your geographical knowledge, classify Nigeria according to the demographic transition model giving two reasons for your answer.

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Value

6 70. Using the case study and your knowledge of geography, giving three reasons, explain why you agree or disagree with government taking measures to control population growth.

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Unit 7 - Settlement and Urbanization

Value

- 4
71.
- “Urbanization is a more recent phenomena in developing countries than in developed countries.”* Using the case study and your geographical knowledge, assess the validity of this statement, giving two reasons for your answer.

Value

- 6
72.
- With reference to the case study and your geographical knowledge, what three strategies would you develop to improve the quality of life in Nigeria? Explain why they would work.
