

Chapter 1: A Global and Canadian Outlook on Natural Disasters

Student: _____

1. Most of the 40 deadliest disasters between 1970 and 2005 occurred in a belt running from China and Bangladesh through India and Iran to Turkey. This area was particularly vulnerable because

_____.

- A. it has a high population density
- B. most of the world's earthquakes and volcanic eruptions occur here
- C. precipitation rates are very high in this region, producing frequent, large, and sudden floods
- D. it has a high population density and precipitation rates are very high in this region, producing frequent, large, and sudden floods are correct
- E. it has a high population density, most of the world's earthquakes and volcanic eruptions occur here, and precipitation rates are very high in this region, producing frequent, large, and sudden floods are correct

2. During the last half of the 20th century, earthquakes, tsunamis, and _____ account for the majority of deaths from natural disasters.

- A. volcanic eruptions
- B. floods
- C. landslides
- D. hurricanes
- E. tornadoes

3. Based on data for the period from 1947 to 1980, the continent of _____ experienced the greatest loss of life from natural disasters.

- A. North America
- B. South America
- C. Europe
- D. Africa
- E. Asia

4. The greatest insurance dollar losses as a result of natural disasters in the last three decades of the 20th century occurred in _____.
- A. Mexico
 - B. China
 - C. the United States
 - D. Tibet
 - E. India
5. Based on insurance industry records of economic loss from natural disasters, 32 of the 40 most expensive disasters between 1970 and 2005 were _____ and floods.
- A. earthquakes
 - B. volcanic eruptions
 - C. storms
 - D. landslides
 - E. fires
6. The return period of a disaster is the average number of years _____.
- A. before survivors return to their homes
 - B. before the economy returns to pre-disaster levels
 - C. it takes for emotional recovery of victims
 - D. between same-sized events
 - E. between events of the same type, regardless of size
7. Which of the following disasters has the highest probability of causing a "10-fatality event" each year?
- A. an earthquake
 - B. a volcanic eruption
 - C. a hurricane
 - D. a tornado
 - E. a flood
8. Which of the following disasters has the highest probability of causing a "1,000-fatality event" each year?
- A. an earthquake
 - B. a volcanic eruption
 - C. a hurricane
 - D. a tornado
 - E. a flood

9. The rapid increase in human population during the past several centuries is an example of _____ growth.

- A. linear
- B. algebraic
- C. parabolic
- D. integrated
- E. exponential

10. In the last two or three centuries _____.

- A. birth rates have changed little, while death rates have plunged
- B. both birth rates and death rates have plunged
- C. both birth rates and death rates have skyrocketed
- D. birth rates have skyrocketed, while death rates have plunged

11. The present human population of the world is a little more than _____.

- A. 500 million
- B. 6 billion
- C. 60 billion
- D. 100 billion
- E. one trillion

12. The growth rate of the world population equals _____.

- A. the birth rate plus the death rate
- B. the birth rate minus the death rate
- C. the death rate minus the birth rate
- D. None of these are correct.

13. At present, the world population of humans is growing at a rate of _____% per year.

- A. 0.02
- B. 0.12
- C. 1.2
- D. 12
- E. 22

14. At present, after subtracting deaths from births, world population increases 1.3 percent per year for a doubling time of _____.

- A. 58 years
- B. 14 years
- C. 140 years
- D. 70 years
- E. 280 years

15. At present, the world population of humans grows by over _____ million per year.

- A. 0.08
- B. 0.8
- C. 8
- D. 80
- E. 800

16. The growth of human population worldwide over the past 1000 years has been _____.

- A. essentially zero
- B. exponential, with a constant growth rate
- C. exponential, with a generally increasing growth rate
- D. on a straight linear increase with time
- E. unaffected by technology

17. In the last 50 years of the 20th century, world population grew from _____ billion to over 6 billion.

- A. 5
- B. 4
- C. 3.5
- D. 3
- E. 2.5

18. Most of the more-developed countries have _____.

- A. low death rates and low birth rates
- B. low death rates and high birth rates
- C. high death rates and low birth rates
- D. high death rates and high birth rates

19. Today, the less-developed countries have _____.

- A. low death rates and high birth rates
- B. low death rates and low birth rates
- C. high death rates and low birth rates
- D. high death rates and high birth rates

20. In the 1998 St. Lawrence River Valley ice storm, freezing rain fell for _____ over 5 days.

- A. 24 hours
- B. 48 hours
- C. 80 hours
- D. 100 hours

21. In the 1998 St. Lawrence River Valley ice storm, 45 people died from _____.

- A. hypothermia
- B. ice falls
- C. carbon monoxide poisoning
- D. fire
- E. all of these

22. The overall increase in Canadian natural disasters from 1900 to 2005 is due mainly to _____.

- A. geologic disasters
- B. weather-related disasters
- C. meteor impacts
- D. all of these

23. Which of the following is not one of Public Safety Canada's four pillars of emergency management?

- A. response
- B. recovery
- C. mitigation
- D. evacuation
- E. preparedness

24. The amount of water recommended for a home emergency kit is _____.

- A. 1 litre per person per day
- B. 2 litres per person per day
- C. 4 litres per person per day
- D. 8 litres per person per day

25. Disasters occur where the Earth unleashes its concentrated energy.

True False

26. In general, there is an inverse correlation between the frequency and the magnitude of a disaster process.

True False

27. If a particular disaster has a high frequency of occurrence, then it also has a large return period (recurrence interval).

True False

28. In general, the larger and more energetic the disaster event, the shorter the return period between such events.

True False

29. The annual likelihood of a tornado that kills 10 people is less than that of an earthquake killing the same number of people.

True False

30. The likelihood over 20 years of a hurricane that kills 1000 people is greater than that of an earthquake that kills 1000 people.

True False

31. Of the 40 worst disasters between 1970 and 2005, the most frequent mega-killers were earthquakes.

True False

32. In the period between 1970 and 2005, 26 of the 40 worst disasters occurred in a belt running from Bangladesh through India and Iran to Turkey.

True False

33. Asia dominates the list of the 40 worst killing disasters of the last three decades of the 20th century, with almost 86 percent of the fatalities occurring in these regions.

True False

34. The locations of the worst dollar-loss disasters for the insurance industry present a very different picture than the list of worst locations for fatalities in the last three decades of the twentieth century.

True False

35. Today, the world growth rate for human population is rapidly declining.

True False

36. By the year 2000 B.C.E., the world's total population was over 6 billion.

True False

37. At present, the world population is growing at about 1.2 percent per year for a doubling time of 58 years.

True False

38. If 6 billion people stood shoulder-to-shoulder with each person having his or her own 1-metre by 30-cm space, the entire world population would fit inside a square fence about 42 kilometres on a side.

True False

39. If a 1.2 percent annual rate of human population increase were to continue without change into the future, the volume of human flesh would about equal the volume of the Earth in less than 2,000 years from now.

True False

40. When carrying capacity decreases, populations collapse in mass die-offs.

True False

41. The difference between a world population in the year 2150 of 3.6 billion or 27 billion rests on a difference of only 1 child per woman.

True False

42. A very slow exponential growth rate of population can continue indefinitely on an Earth of finite size and resources.

True False

43. Beginning in the eighteenth century, discoveries in science, medicine, and public health caused death rates to drop dramatically.

True False

44. World population growth presently varies greatly from one region to another.

True False

45. The rate of world population growth has increased from 1.8 percent in 1990 to 4.4 percent in 2000.

True False

46. The age distribution of a population (relative proportions of people of different ages) is not important when considering the growth rate of that population.

True False

47. In the last 50 years of the 20th century, the world population of humans grew from 2.5 billion to over 6 billion.

True False

48. The majority of Canadian disasters from 1900 to 2005 are not due to natural causes.

True False

49. The list of most costly Canadian disasters is dominated by earthquakes, volcanoes, and tsunamis.

True False

50. The fact that Canada has not experienced a great geological disaster is in part due to the relatively short history of the country.

True False

c1 Key

1. Most of the 40 deadliest disasters between 1970 and 2005 occurred in a belt running from China and Bangladesh through India and Iran to Turkey. This area was particularly vulnerable because

- _____.
- A.** it has a high population density
 - B. most of the world's earthquakes and volcanic eruptions occur here
 - C. precipitation rates are very high in this region, producing frequent, large, and sudden floods
 - D. it has a high population density and precipitation rates are very high in this region, producing frequent, large, and sudden floods are correct
 - E. it has a high population density, most of the world's earthquakes and volcanic eruptions occur here, and precipitation rates are very high in this region, producing frequent, large, and sudden floods are correct

Abbott - Chapter 01 #1

2. During the last half of the 20th century, earthquakes, tsunamis, and _____ account for the majority of deaths from natural disasters.

- A. volcanic eruptions
- B. floods
- C. landslides
- D.** hurricanes
- E. tornadoes

Abbott - Chapter 01 #2

3. Based on data for the period from 1947 to 1980, the continent of _____ experienced the greatest loss of life from natural disasters.

- A. North America
- B. South America
- C. Europe
- D. Africa
- E.** Asia

Abbott - Chapter 01 #3

4. The greatest insurance dollar losses as a result of natural disasters in the last three decades of the 20th century occurred in _____.

- A. Mexico
- B. China
- C. the United States**
- D. Tibet
- E. India

Abbott - Chapter 01 #4

5. Based on insurance industry records of economic loss from natural disasters, 32 of the 40 most expensive disasters between 1970 and 2005 were _____ and floods.

- A. earthquakes
- B. volcanic eruptions
- C. storms**
- D. landslides
- E. fires

Abbott - Chapter 01 #5

6. The return period of a disaster is the average number of years _____.

- A. before survivors return to their homes
- B. before the economy returns to pre-disaster levels
- C. it takes for emotional recovery of victims
- D. between same-sized events**
- E. between events of the same type, regardless of size

Abbott - Chapter 01 #6

7. Which of the following disasters has the highest probability of causing a "10-fatality event" each year?

- A. an earthquake
- B. a volcanic eruption
- C. a hurricane
- D. a tornado**
- E. a flood

Abbott - Chapter 01 #7

8. Which of the following disasters has the highest probability of causing a "1,000-fatality event" each year?

- A. an earthquake
- B. a volcanic eruption
- C. a hurricane**
- D. a tornado
- E. a flood

Abbott - Chapter 01 #8

9. The rapid increase in human population during the past several centuries is an example of _____ growth.

- A. linear
- B. algebraic
- C. parabolic
- D. integrated
- E. exponential**

Abbott - Chapter 01 #9

10. In the last two or three centuries _____.

- A. birth rates have changed little, while death rates have plunged**
- B. both birth rates and death rates have plunged
- C. both birth rates and death rates have skyrocketed
- D. birth rates have skyrocketed, while death rates have plunged

Abbott - Chapter 01 #10

11. The present human population of the world is a little more than _____.

- A. 500 million
- B. 6 billion**
- C. 60 billion
- D. 100 billion
- E. one trillion

Abbott - Chapter 01 #11

12. The growth rate of the world population equals _____.

- A. the birth rate plus the death rate
- B. the birth rate minus the death rate**
- C. the death rate minus the birth rate
- D. None of these are correct.

Abbott - Chapter 01 #12

13. At present, the world population of humans is growing at a rate of _____% per year.

- A. 0.02
- B. 0.12
- C. 1.2**
- D. 12
- E. 22

Abbott - Chapter 01 #13

14. At present, after subtracting deaths from births, world population increases 1.3 percent per year for a doubling time of _____.

- A. 58 years**
- B. 14 years
- C. 140 years
- D. 70 years
- E. 280 years

Abbott - Chapter 01 #14

15. At present, the world population of humans grows by over _____ million per year.

- A. 0.08
- B. 0.8
- C. 8
- D. 80**
- E. 800

Abbott - Chapter 01 #15

16. The growth of human population worldwide over the past 1000 years has been _____.
- A. essentially zero
 - B. exponential, with a constant growth rate
 - C. exponential, with a generally increasing growth rate**
 - D. on a straight linear increase with time
 - E. unaffected by technology

Abbott - Chapter 01 #16

17. In the last 50 years of the 20th century, world population grew from _____ billion to over 6 billion.
- A. 5
 - B. 4
 - C. 3.5
 - D. 3
 - E. 2.5**

Abbott - Chapter 01 #17

18. Most of the more-developed countries have _____.
- A. low death rates and low birth rates**
 - B. low death rates and high birth rates
 - C. high death rates and low birth rates
 - D. high death rates and high birth rates

Abbott - Chapter 01 #18

19. Today, the less-developed countries have _____.
- A. low death rates and high birth rates**
 - B. low death rates and low birth rates
 - C. high death rates and low birth rates
 - D. high death rates and high birth rates

Abbott - Chapter 01 #19

20. In the 1998 St. Lawrence River Valley ice storm, freezing rain fell for _____ over 5 days.
- A. 24 hours
 - B. 48 hours
 - C.** 80 hours
 - D. 100 hours

Abbott - Chapter 01 #20

21. In the 1998 St. Lawrence River Valley ice storm, 45 people died from _____.
- A. hypothermia
 - B. ice falls
 - C. carbon monoxide poisoning
 - D. fire
 - E.** all of these

Abbott - Chapter 01 #21

22. The overall increase in Canadian natural disasters from 1900 to 2005 is due mainly to _____.
- A. geologic disasters
 - B.** weather-related disasters
 - C. meteor impacts
 - D. all of these

Abbott - Chapter 01 #22

23. Which of the following is not one of Public Safety Canada's four pillars of emergency management?
- A. response
 - B. recovery
 - C. mitigation
 - D.** evacuation
 - E. preparedness

Abbott - Chapter 01 #23

24. The amount of water recommended for a home emergency kit is _____.

- A. 1 litre per person per day
- B. 2 litres per person per day**
- C. 4 litres per person per day
- D. 8 litres per person per day

Abbott - Chapter 01 #24

25. Disasters occur where the Earth unleashes its concentrated energy.

TRUE

Abbott - Chapter 01 #25

26. In general, there is an inverse correlation between the frequency and the magnitude of a disaster process.

TRUE

Abbott - Chapter 01 #26

27. If a particular disaster has a high frequency of occurrence, then it also has a large return period (recurrence interval).

FALSE

Abbott - Chapter 01 #27

28. In general, the larger and more energetic the disaster event, the shorter the return period between such events.

FALSE

Abbott - Chapter 01 #28

29. The annual likelihood of a tornado that kills 10 people is less than that of an earthquake killing the same number of people.

FALSE

Abbott - Chapter 01 #29

30. The likelihood over 20 years of a hurricane that kills 1000 people is greater than that of an earthquake that kills 1000 people.

TRUE

Abbott - Chapter 01 #30

31. Of the 40 worst disasters between 1970 and 2005, the most frequent mega-killers were earthquakes.

TRUE

Abbott - Chapter 01 #31

32. In the period between 1970 and 2005, 26 of the 40 worst disasters occurred in a belt running from Bangladesh through India and Iran to Turkey.

TRUE

Abbott - Chapter 01 #32

33. Asia dominates the list of the 40 worst killing disasters of the last three decades of the 20th century, with almost 86 percent of the fatalities occurring in these regions.

TRUE

Abbott - Chapter 01 #33

34. The locations of the worst dollar-loss disasters for the insurance industry present a very different picture than the list of worst locations for fatalities in the last three decades of the twentieth century.

TRUE

Abbott - Chapter 01 #34

35. Today, the world growth rate for human population is rapidly declining.

FALSE

Abbott - Chapter 01 #35

36. By the year 2000 B.C.E., the world's total population was over 6 billion.

FALSE

Abbott - Chapter 01 #36

37. At present, the world population is growing at about 1.2 percent per year for a doubling time of 58 years.

TRUE

Abbott - Chapter 01 #37

38. If 6 billion people stood shoulder-to-shoulder with each person having his or her own 1-metre by 30-cm space, the entire world population would fit inside a square fence about 42 kilometres on a side.

TRUE

Abbott - Chapter 01 #38

39. If a 1.2 percent annual rate of human population increase were to continue without change into the future, the volume of human flesh would about equal the volume of the Earth in less than 2,000 years from now.

TRUE

Abbott - Chapter 01 #39

40. When carrying capacity decreases, populations collapse in mass die-offs.

TRUE

Abbott - Chapter 01 #40

41. The difference between a world population in the year 2150 of 3.6 billion or 27 billion rests on a difference of only 1 child per woman.

TRUE

Abbott - Chapter 01 #41

42. A very slow exponential growth rate of population can continue indefinitely on an Earth of finite size and resources.

FALSE

Abbott - Chapter 01 #42

43. Beginning in the eighteenth century, discoveries in science, medicine, and public health caused death rates to drop dramatically.

TRUE

Abbott - Chapter 01 #43

44. World population growth presently varies greatly from one region to another.

TRUE

Abbott - Chapter 01 #44

45. The rate of world population growth has increased from 1.8 percent in 1990 to 4.4 percent in 2000.

FALSE

Abbott - Chapter 01 #45

46. The age distribution of a population (relative proportions of people of different ages) is not important when considering the growth rate of that population.

FALSE

Abbott - Chapter 01 #46

47. In the last 50 years of the 20th century, the world population of humans grew from 2.5 billion to over 6 billion.

TRUE

Abbott - Chapter 01 #47

48. The majority of Canadian disasters from 1900 to 2005 are not due to natural causes.

TRUE

Abbott - Chapter 01 #48

49. The list of most costly Canadian disasters is dominated by earthquakes, volcanoes, and tsunamis.

FALSE

Abbott - Chapter 01 #49

50. The fact that Canada has not experienced a great geological disaster is in part due to the relatively short history of the country.

TRUE

Abbott - Chapter 01 #50

c1 Summary

<u>Category</u>	<u># of Questions</u>
Abbott - Chapter 01	50