



Practice Midterm Exam

Raven, Berg, Hassenzahl: Environment, 7th Edition
Chapter 19: Food Resources

1. The two areas of the world with the greatest food insecurity are:
 - a) South America and South Asia
 - b) South America and sub-Saharan Africa
 - c) China and sub-Saharan Africa
 - d) South Asia and sub-Saharan Africa
 - e) the Middle East and South Asia

Ans: d

Difficulty: Easy

Response:

Fisheries of the World, 19.6

2. The quantity of various grains remaining from previous harvests is known as:
 - a) subsistence agriculture
 - b) food security
 - c) world grain stocks
 - d) yield
 - e) organic farming surplus

Ans: c

Difficulty: Easy

Response:

Maintaining Grain Stocks; 19.1.2

3. The main cause of undernutrition and malnutrition is:
 - a) poverty
 - b) inadequate global food production
 - c) polyculture
 - d) decreasing livestock yields
 - e) organic farming practices

Ans: a

Difficulty: Easy

Response:

Poverty and Food; 19.1.4

4. The most common foods eaten in the world today are:
 - a) corn (maize), rice, sweet potato, and wheat
 - b) barley, corn, rice, and wheat
 - c) corn, rice, and wheat
 - d) cassava, potato, rice, and wheat
 - e) corn, potato, soybean, and rice

Ans: c

Difficulty: Easy

Response:

Food Production; 19.2



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5. According to Indian Nobel laureate Amartya Sen, what is the leading cause of hunger and famine?
- a) soil degradation
 - b) per capita income
 - c) climate conditions
 - d) government type
 - e) access to education

Ans: d

Difficulty: Easy

Response:

Economic and Political Effects on Food Security; 19.1.3

6. All of the following are among the most important livestock species except:
- a) pigs
 - b) turkeys
 - c) goats
 - d) water buffalo
 - e) deer

Ans: e

Difficulty: Easy

Response:

Food Production; 19.2

7. Lacto-ovo vegetarians:
- a) eat meat, but only once a week
 - b) consume eggs, milk, and milk products, such as cheese and yogurt
 - c) do not eat eggs, but do consume milk and milk products
 - d) do not eat any animal products
 - e) do not consume dairy products, but do eat eggs

Ans: b

Difficulty: Easy

Response:

Food Production; 19.2

8. The decline in genetic diversity within a given variety of crop plant results in loss of:
- a) color variations
 - b) flavor differences
 - c) nutritional differences
 - d) size variations
 - e) all of these

Ans: e

Difficulty: Easy

Response:

The Effect of Domestication on Genetic Diversity; 19.3.1



Practice Midterm Exam

9. Germplasm:

- a) can only be distributed by government agencies
- b) refers to only the seeds of traditional crop varieties
- c) is the subject of a new international treaty governing the exchange and patenting of these materials
- d) cannot be used to preserve or improve the genetic characteristics of livestock
- e) all of these

Ans: c

Difficulty: Easy

Response:

Effect of Domestication on Genetic Diversity; 19.3.1

10. Which of the following crops has not been significantly improved by the green revolution?

- a) potatoes
- b) wheat
- c) sweet potatoes
- d) rice
- e) corn

Ans: c

Difficulty: Easy

Response:

Case in Point: The Green Revolution; 19.3.3

11. From the farmer's field to the kitchen table, which section of the "food pipeline" contributes the most greenhouse gases?

- a) transportation
- b) food production
- c) packaging
- d) marketing
- e) home storage

Ans: b

Difficulty: Easy

Response:

The Environmental Impacts of Agriculture; 19.4

12. Which of the following is/are currently used to increase livestock yields?

- a) maintaining a wide variety of genetically diverse livestock
- b) using genetically engineered foodstuffs
- c) implementing integrated pest management
- d) administering antibiotics and hormones
- e) increasing use of nomadic herding

Ans: d

Difficulty: Easy

Response:

Increasing Livestock Yields; 19.3.4



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13. Fisheries represent an important resource because:
- 1) fish contain high-quality protein
 - 2) they are an infinite, renewable resource
 - 3) they provide a significant source of protein, particularly in developing countries
 - 4) the world fish harvest is now close to 10 million tons
- a) 1
 - b) 2
 - c) 3
 - d) 4
 - e) Both 1 and 3

Ans: e

Difficulty: Easy

Response:

Fisheries of the World; 19.6

14. Which of the following fish species is not at risk from overfishing?
- a) tuna
 - b) cod
 - c) marlin
 - d) swordfish
 - e) none of these, all are at risk from overfishing

Ans: e

Difficulty: Easy

Response:

Problems and Challenges for the Fishing Industry; 19.6.1

15. Which of the following fishing practices has been banned by most countries but continues to be used illegally?
- a) longlines
 - b) bycatch
 - c) trawl bag
 - d) drift nets
 - e) purse-seine nets

Ans: d

Difficulty: Easy

Response:

Problems and Challenges for the Fishing Industry; 19.6.1

16. Aquaculture is:
- a) fish farming
 - b) growing plants without soil
 - c) using desalinated water for irrigation
 - d) a type of germplasm storage
 - e) fishing without hooks

Ans: a

Difficulty: Easy

Response:

Aquaculture: Fish Farming; 19.6.3



Practice Midterm Exam

17. Which of the following statements about organic food production is true?
- a) Organic farming has allowed U.S. agriculture to become the most efficient and productive in the world.
 - b) It may involve the use of antibiotics and hormones for livestock, as long as no chemicals are added to crops.
 - c) Organic livestock must be fed organic feed.
 - d) The soil is fertilized with commercial inorganic fertilizer, with the use of cover crops every fourth year.
 - e) Organic farms must be kept insect-free to allow for the crops to survive without the use of pesticides.

Ans: c

Difficulty: Medium

Response:

Sustainable Agriculture; 19.5.1

18. An individual who is undernourished:
- a) probably consumes excess fats and/or sugar
 - b) is unlikely to contract marasmus since it must be inherited from at least one parent
 - c) receives fewer calories than needed for an extended period of time
 - d) has an adequate calorie intake, as well as plenty of essential nutrients such as minerals or vitamins
 - e) is one of an estimated 50 million children under age six who are undernourished

Ans: c

Difficulty: Medium

Response:

Chapter Opener; 19.0

19. The long-term solution to the food supply problem is to:
- a) control human population growth
 - b) expand organic farming
 - c) implement the use of genetically engineered crops and livestock
 - d) develop and then utilize genetically diverse varieties of various crops
 - e) expand energy-intensive agricultural methods that produce high yields of food

Ans: a

Difficulty: Medium

Response:

World Food Security; 19.1

20. Two main reasons that the world grain stocks have dropped in the past few years are:
- a) bad weather and increased consumption of animal products
 - b) wars (conflicts) and political unrest
 - c) increased disease (e.g. AIDS) and bad weather
 - d) bad weather and wars
 - e) lower grain prices and political unrest

Ans: a

Difficulty: Medium

Response:

Maintaining Grain Stocks; 19.1.2



Practice Midterm Exam

21. Which of the following is not a long-term solution to world food problems?
- a) overcome cultural barriers to the acceptance of different types of food
 - b) increase the sustainable production of food
 - c) assist overall economic development
 - d) stabilize populations at sustainable levels
 - e) increase dependence on energy-intensive, high-yield agricultural methods

Ans: e

Difficulty: Medium

Response:

The Principle Types of Agriculture; 19.2.1

22. Livestock is an expensive source of food because:
- a) it is particularly rich in protein
 - b) of the amount of land area needed to house the animals
 - c) the antibiotics and hormones needed to support high yields are exceedingly expensive
 - d) it is the preferred food source in many developing countries
 - e) animals are inefficient at converting plant food into meat

Ans: e

Difficulty: Medium

Response:

Food Production; 19.2

23. Domesticated plants and animals:
- a) are characterized by high genetic diversity
 - b) are less likely to succumb to new strains of disease-causing organisms
 - c) tend to lose genetic diversity as the farmer selects for more desirable agricultural characteristics
 - d) can readily survive in both cultivated and wild (natural) settings
 - e) readily adapt to changing environmental conditions

Ans: c

Difficulty: Medium

Response:

The Effect of Domestication on Genetic Diversity; 19.3.1

24. In the future, all of the following factors are likely to contribute to an increased demand for rice, corn and wheat except:
- a) increasing demand for meat
 - b) increased use of crop plants to produce biofuels
 - c) increased population size
 - d) migration away from productive growing areas
 - e) increasing affluence

Ans: d

Difficulty: Medium

Response:

Case in Point: The Green Revolution; 19.3.3



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25. Use the data provided in the table below to determine the percent increase in the U.S. wheat yield per acre from 1960 to 2000:

Year	Yield (bushels per acre)
1950	16.5
1960	26.1
1970	31.0
1980	33.5
1990	39.5
2000	42.0

- a) approximately 40%.
- b) approximately 50%.
- c) approximately 60%.
- d) approximately 100%.
- e) approximately 160%.

Ans: c

Difficulty: Medium

Response:

Increasing Crop Yields; 19.3.2

26. Which of the following identifies one of the problems associated with the "green revolution"?

- 1) it did not produce enough food for developing countries
 - 2) it made developing countries dependent on high-energy, imported technologies
 - 3) it was confined to highly developed countries
 - 4) it was rejected due to conflict with cultural traditions in developing countries
- a) 1
 - b) 2
 - c) 3
 - d) 4
 - e) Both 1 and 3

Ans: b

Difficulty: Medium

Response:

Case in Point: The Green Revolution; 19.3.3

27. Concern over the routine use of antibiotics in raising livestock centers around:

- a) the potential that bacterial resistance to antibiotics may increase as a result
- b) violations of U.S. government policy that prohibits their indiscriminate use in livestock
- c) the fact that the antibiotics may be toxic to small children
- d) a tentative link between antibiotics and cancer
- e) the excessively high concentrations of chemicals that are then found in the meat products

Ans: a

Difficulty: Medium

Response:

Increasing Livestock Yields; 19.3.4



Practice Midterm Exam

28. Which of the following is not an environmental problem associated with industrialized agriculture?
- a) release of antioxidants
 - b) soil erosion
 - c) depletion of freshwater resources
 - d) disposal of livestock wastes
 - e) habitat loss

Ans: a

Difficulty: Medium

Response:

The Principle Types of Agriculture; 19.2.1

29. Which of the following statements about sustainable agriculture is false?
- a) An important goal of sustainable agriculture is to preserve the quality of the agricultural soil.
 - b) Sustainable agriculture methods are less damaging to the environment, but have higher associated costs.
 - c) Sustainable agriculture relies on beneficial biological processes and environmentally friendly chemicals.
 - d) Sustainable agriculture involves diversification of crops and livestock.
 - e) Sustainable agriculture is also known as alternative or low-input agriculture.

Ans: b

Difficulty: Medium

Response:

Sustainable Agriculture; 19.5.1

30. Sustainable agricultural practices are characterized by all of the following except:
- a) crop selection
 - b) water and energy conservation
 - c) monoculture
 - d) use of manure as a fertilizer
 - e) increasing biological diversity to control pests

Ans: c

Difficulty: Medium

Response:

Sustainable Agriculture; 19.5.1

31. GM (genetically modified) crops and foods:
- a) may have higher nutritional value than the original product
 - b) may be resistant to pests, diseases, and stressful (weather)/climate conditions
 - c) may produce unexpected allergic reactions in some consumers
 - d) have been largely banned by the European Union
 - e) all of these

Ans: e

Difficulty: Medium

Response:

The Gene Revolution; 19.3.5



Practice Midterm Exam

32. To optimize the quality and productivity of their "crops," aquaculture farmers control all of the following except:
- a) predation
 - b) breeding cycles
 - c) market prices
 - d) diets
 - e) water quality

Ans: c

Difficulty: Medium

Response:

Aquaculture: Fish Farming; 19.6.3

33. One of the factors slowing the expansion of aquaculture is:
- 1) restrictive legislation
 - 2) that it is expensive
 - 3) lack of public willingness to purchase fish produced by aquaculture
 - 4) that the fish produced are of lower quality than wild-caught
- a) 1
 - b) 2
 - c) 3
 - d) 4
 - e) Both 3 and 4

Ans: b

Difficulty: Medium

Response:

Aquaculture: Fish Farming; 19.6.3

34. The two most common disease of malnutrition are marasmus and kwashiorkor. Differences between these two diseases include:
- 1) marasmus is caused by a diet low in total calories and protein; kwashiorkor results from protein deficiency
 - 2) marasmus is malnutrition of adults; kwashiorkor is malnutrition of children
 - 3) marasmus is malnutrition of poor families in highly developed nations; kwashiorkor is malnutrition of people in developing countries
 - 4) marasmus is characterized by a progressive emaciation; a swollen abdomen characterizes kwashiorkor
- a) 1
 - b) 2
 - c) 3
 - d) 4
 - e) Both 1 and 4 are differences

Ans: e

Difficulty: Medium

Response:

Chapter Opener; 19.0



Practice Midterm Exam

35. All of the following are subsistence agriculture practices except:
- a) shifting cultivation
 - b) slash-and-burn agriculture
 - c) nomadic herding
 - d) intercropping
 - e) high-input agriculture

Ans: e

Difficulty: Medium

Response:

The Principle Types of Agriculture; 19.2.1

36. In the State of Food Insecurity report by the U.N. Food and Agriculture Organization, it is stated that approximately _____ of the human population lack access to food needed for a healthy lifestyle.
- a) 500 million
 - b) 900 million
 - c) 700 million
 - d) 1 billion
 - e) 1.5 billion

Ans: b

Difficulty: Medium

Response:

Chapter Opener; 19.0

37. Which term is used to define the state of a person who can receive enough calories in their diet, but not receive enough vitamins and nutrients.
- a) malnutrition
 - b) overnourished
 - c) famine
 - d) emaciated
 - e) none of these

Ans: a

Difficulty: Easy

Response:

Chapter Opener; 19.0

38. Which areas of the world are most at risk for famine?
- a) developing nations in Latin America
 - b) developing nations in Africa
 - c) western Europe
 - d) impoverished cities in highly developed countries
 - e) both developing nations in Latin America and developing nations in Africa

Ans: e

Difficulty: Easy

Response:

Famines; 19.1.1



Practice Midterm Exam

39. Which of the following is not a reason why world grain stocks have decreased in recent years?
- a) environmental conditions due to global warming
 - b) consumption of beef has increased in China and other developing countries
 - c) increased investments in agricultural research
 - d) corn yields are increasingly diverted into ethanol production and research
 - e) none of these

Ans: c

Difficulty: Easy

Response:

Maintaining Grain Stocks; 19.1.2

40. A type of subsistence agriculture which requires large tracts of land and consists of short periods of cultivation followed by lengthened fallow periods:
- a) slash-and-burn agriculture
 - b) nomadic herding
 - c) intercropping
 - d) shifting cultivation
 - e) both slash-and-burn agriculture and shifting cultivation

Ans: d

Difficulty: Easy

Response:

The Principle Types of Agriculture; 19.2.1

41. A type of intercropping in which many different species of plants are planted together:
- a) monoculture
 - b) afroculture
 - c) magniculture
 - d) polyculture
 - e) ambiculture

Ans: d

Difficulty: Easy

Response:

The Principle Types of Agriculture; 19.2.1

42. Which of the following statements about genetic diversity is false?
- a) Wild plant and animal populations generally have high genetic diversity.
 - b) Much of genetic diversity is lost due to domestication.
 - c) During domestication, selection often occurs for traits which are not of obvious value to humans.
 - d) Low genetic diversity increases vulnerability to new disease-causing organisms.
 - e) The majority of vegetable crops grown in the U.S. are of only a few varieties.

Ans: c

Difficulty: Medium

Response:

The Effect of Domestication on Genetic Diversity; 19.3.1



Practice Midterm Exam

43. Modern cultivation methods combined with high-yielding varieties of certain popular crops to increase the amount of food produced per designated area is:
- a) organic farming
 - b) green revolution
 - c) chemical enhancement
 - d) self-yielding farming
 - e) none of these

Ans: b

Difficulty: Easy

Response:

Case in Point: The Green Revolution; 19.3.3

44. What country produces the most genetically modified crops?
- a) Germany
 - b) Brazil
 - c) Canada
 - d) United States
 - e) France

Ans: d

Difficulty: Easy

Response:

The Gene Revolution; 19.3.5

45. Based on our current understanding of genetically modified crops, which of the following statements is true?
- a) Genetically modified crops are just as safe for consumption as organic crops.
 - b) No research is being done to analyze the effects of genetically modified crop seeds spreading uncontrollably.
 - c) Genetically modified crops in North America have already been found to have harmful effects on the environment.
 - d) There are very lenient rules in areas of genetic modification research.
 - e) None of these are true.

Ans: a

Difficulty: Medium

Response:

The Gene Revolution; 19.3.5

46. Important environmental benefits provided by ecosystems are known as:
- a) evolution of genetics
 - b) habitat exploitation
 - c) ecosystem services
 - d) natural products
 - e) none of these

Ans: c

Difficulty: Easy

Response:

The Environmental Impacts of Agriculture; 19.4



Practice Midterm Exam

47. A process, either natural or manmade, that decreases the ability of land to support future crops or livestock is:
- a) habitat fragmentation
 - b) slash-and-burn farming
 - c) overgrazing
 - d) marginal cultivation
 - e) land degradation

Ans: e

Difficulty: Easy

Response:

The Environmental Impacts of Agriculture; 19.4

48. Which of the following is not part of sustainable agriculture?
- a) organic farming
 - b) integrated pest management
 - c) water and energy conservation
 - d) decreased biodiversity
 - e) decreased pesticide use

Ans: d

Difficulty: Medium

Response:

Sustainable Agriculture; 19.5.1

49. Germplasm:
- a) can only be distributed by government agencies
 - b) refers to only the seeds of traditional crop varieties
 - c) any plant or animal that may be used for breeding
 - d) cannot be used to preserve or improve the genetic characteristics of livestock
 - e) all of these

Ans: c

Difficulty: Easy

Response:

The Effect of Domestication on Genetic Diversity; 19.3.1

50. Which of the following factors concerning South Asia and southern Africa suggest that people there will be increasingly food-insecure as a result of global climate change?
- a) people are dependent on locally-grown foods
 - b) increases in extreme weather events will lead to a decrease in all food crops
 - c) the warming climate will lead to an increase in production of certain crops
 - d) uncertainty of climate projections
 - e) different plant species will respond differently to changing climate

Ans: a

Difficulty: Medium

Response:

Energy and Climate Change: Food Security; 19.6