TEST BANK

# Our Origins

FIFTH EDITION

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*Greg Laden*

*Tracy Betsinger*

THE STATE UNIVERSITY OF NEW YORK - ONEONTA

*Nicole Slovak*

SANTA ROSE JUNIOR COLLEGE

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# INTRODUCTION

W. W. Norton strives to produce high-quality, valid, and reliable assessment supplements according to the following criteria.

## STUDENT COMPETENCIES AND EVIDENCE-CENTERED DESIGN

A good assessment tool must:

1. define what students need to know and the level of knowledge and skills that constitute competence in the concepts about which they are learning;
2. include test items that provide valid and reliable evidence of competence by assessing the material to be learned at the appropriate level; and
3. enable instructors to judge accurately what students know and how well they know it, thus allowing instructors to focus on areas where students need the most help.

## ASSESSMENT INFORMATION

Every question is labeled with six levels of metadata to allow instructors to assess their students. These metadata tags are:

- ANS: This is the correct answer for each question.
- DIF: This is the difficulty assigned to the problem. Problems have been classified as Easy, Moderate, or Difficult.
- OBJ: This is the learning objective, taken from the instructor's manual, that the question is intended to assess.
- TOP: This references the topic, taken from the chapter heads, that is tested by the question.
- MSC: This is the level of Bloom's Taxonomy that the question is designed to test. For more information, please see "Bloom's Taxonomy" below.

## BLOOM'S TAXONOMY

These question types are informed by Bloom's Taxonomy. We have focused on the levels of Bloom's taxonomy that are most relevant to physical anthropology and are most reliably assessed through the types of questions included in this test bank.

1. **Remembering** questions test declarative knowledge, including textbook definitions and relationships between two or more pieces of information. Can students recall or remember the information in the same form it was learned?
2. **Understanding** questions pose problems in a context different from the one in which the material was learned, requiring students to draw from their declarative and/or procedural understanding of important concepts. Can students explain ideas or concepts?
3. **Applying** questions ask students to draw from their prior experience and use critical-thinking skills to reason about the real world. Can students use learned information in new situations?
4. **Analyzing** questions test students' abilities to break down information and see how different elements relate to each other and to the whole. Can students distinguish among the different parts?

5. **Evaluating** questions ask students to assess information as a whole and frame their own arguments. Can students make decisions and distinguish between valid and invalid claims?

## DIFFICULTY LEVELS

1. **Easy** questions require a basic understanding of the concepts, definitions, and examples presented in the textbook.
2. **Moderate** questions direct students to use critical thinking skills and to demonstrate an understanding of core concepts independent of specific textbook examples or definitions.
3. **Difficult** questions ask students to synthesize textbook concepts to make analytical inferences or to evaluate claims.

## GENERAL RULES FOR NORTON ASSESSMENT

Each question measures and links explicitly to a specific concept and objective and is written in clear, concise, and grammatically correct language that suits the difficulty level of the material being assessed. To ensure the validity of questions, no extraneous, ambiguous, or confusing material is included, and no slang expressions are used. In developing the questions, every effort has been made to eliminate bias (e.g., race, gender, cultural, ethnic, regional, disability, age, and so on) to require specific knowledge of the material studied, not general knowledge or experience.

# CHAPTER 1 What Is Biological Anthropology?

## LEARNING OBJECTIVES

1A. Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.

1B. Characterize the importance of the biocultural approach to anthropological inquiry.

1C. Explain how Franz Boas's research contributed to the development of the four branches of anthropology.

1D. Identify several different research areas in biological anthropology.

1E. Identify and explain the importance of six major attributes that separate humans from nonhuman animals.

1F. Explain the four steps involved in "doing science" (i.e., the scientific method).

1G. Distinguish between hypotheses and theories.

**MULTIPLE CHOICE**

1. Before AD 1000, what did the people of St. Catherines Island eat?
   a. They ate wild animals, fish, and wild plants.
   b. They ate bison and salmon.
   c. They were vegetarians and ate wild plants exclusively.
   d. They ate mostly fruit.

   ANS: A DIF: Easy
   OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
   TOP: What Is Anthropology? MSC: Remembering

2. What was the cause of the biological change in the indigenous people of St. Catherines Island after AD 1000?
   a. They became sedentary and had less food to eat because they stayed in the same area.
   b. They became sedentary and consumed more corn, which caused dental disease due to its high sugar content.
   c. They became sedentary and did not have enough exercise to keep their bodies fit and healthy.
   d. They continued as nomads, but loss of animals due to climate change created a decline in their food source.

   ANS: B DIF: Moderate
   OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
   TOP: What Is Anthropology? MSC: Remembering

3. What can be learned from studying a population through time?
   a. We can learn that lifestyles do not change over time.
   b. We can learn that diets, and therefore human biology, change through time.
   c. We can learn that consuming the wrong foods over time does little to population health.
   d. We can learn that human physiology does not change through time.

   ANS: B DIF: Moderate
   OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
   TOP: What Is Anthropology? MSC: Understanding

4. Biological anthropologists focus on
   a. humans from a cultural perspective.
   b. humans from a biological perspective.
   c. humans from biological and cultural perspectives.
   d. human behavior only.

   ANS: C DIF: Moderate
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Understanding

5. Archaeologists
   a. study primate evolution.
   b. devote most of their effort to recovering artifacts and building museum collections.
   c. study past human societies, focusing mostly on their material remains.
   d. primarily study the evolution of language.

   ANS: C DIF: Easy
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

6. The biocultural approach
   a. is the study of human remains from archaeological contexts.
   b. studies the interrelationship between human culture and human biology.
   c. assumes that most human culture is genetic in origin.
   d. was originally developed by Boas but subsequently replaced by biological anthropology.

   ANS: B DIF: Moderate
   OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
   TOP: What Is Anthropology? MSC: Understanding

7. What are the four branches of anthropology?
   a. archaeology, geology, geography, and biology
   b. physical anthropology, biological anthropology, cultural anthropology, and linguistic anthropology
   c. cultural anthropology, linguistic anthropology, geology, and physical anthropology
   d. biological anthropology, archaeology, cultural anthropology, and linguistic anthropology

   ANS: D DIF: Moderate
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

8. Which is the study of evolution and variation in humans' physical traits?
   a. biological anthropology
   b. archaeology
   c. linguistic anthropology
   d. cultural anthropology

   ANS: A DIF: Easy
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

9. What are the four branches of anthropology?
   a. linguistic anthropology, cultural anthropology, biological anthropology, and paleontology
   b. cultural anthropology, biological anthropology, archaeology, and linguistic anthropology
   c. paleontology, biological anthropology, cultural anthropology, and linguistic anthropology
   d. biological anthropology, ethnography, cultural anthropology, and archaeology

   ANS: B DIF: Easy
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

10. Your professor researches the Turkana pastoralists of Kenya, investigating both the genetic changes that allow them to easily digest milk and the role that dairy animals have played in their history. Your professor MOST likely uses which of the following methods in her research?
   a. sociolinguistics
   b. interdisciplinary science
   c. the biocultural approach
   d. archaeological excavation

   ANS: C DIF: Moderate
   OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
   TOP: What Is Anthropology? MSC: Applying

11. Biological anthropology is the study of human _____ and human biocultural _____.
   a. bones; nature
   b. evolution; variation
   c. culture; language
   d. pottery; stone tools

   ANS: B DIF: Easy
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

12. What did researchers conclude regarding the populations that lived on St. Catherines Island?
   a. The introduction of farming led to an improvement in overall health.
   b. The population was sedentary, regardless of the people's food acquisition method.
   c. The later farming population was taller with fewer dental problems than the earlier foraging population.
   d. The arrival of the Spanish resulted in harder work and poorer health of the native inhabitants.

   ANS: D DIF: Moderate
   OBJ: Identify several different research areas in biological anthropology.
   TOP: What Is Anthropology? MSC: Remembering

13. The study of culture in the past based on material remains is part of which branch of anthropology?
   a. archaeology
   b. linguistic anthropology
   c. biological anthropology
   d. cultural anthropology

   ANS: A DIF: Moderate
   OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
   TOP: What Is Anthropology? MSC: Remembering

14. The term *hominin* refers to
    a. living humans and their ancestors dating to as far back as 6–8 million years ago.
    b. living humans only.
    c. the earliest ancestors of humans, prior to 6–8 million years ago.
    d. any living or extinct primate that walks upright.

    ANS: A DIF: Easy
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Remembering

15. The human genome
    a. includes about 20,000 genes.
    b. contains an unknown number of genes.
    c. is shared with all primates.
    d. changes throughout life depending on diet and disease.

    ANS: A DIF: Moderate
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Remembering

16. Biological anthropologists view how humans are today as the result of
    a. their biological makeup.
    b. both evolutionary history and their own individual life histories.
    c. their genes; their environment has very little effect.
    d. their environment; their genes have very little effect.

    ANS: B DIF: Moderate
    OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
    TOP: What Is Biological Anthropology? MSC: Understanding

17. The results of a disadvantaged social environment include
    a. poor health, reduced height, and shortened life expectancy.
    b. poor speech and excessive eating habits.
    c. poor reading comprehension.
    d. an inability to think critically and develop long-term planning.

    ANS: A DIF: Moderate
    OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
    TOP: What Is Biological Anthropology? MSC: Remembering

18. Some biological anthropologists study
    a. life on other planets.
    b. the disappearance of languages.
    c. extinct and living species of primates.
    d. changes in marine life.

    ANS: C DIF: Easy
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Understanding

19. Primates are a group of mammals that have
    a. fingernails and forward-facing eyes.
    b. no fingernails and a long snout.
    c. complex behavior and small brains.
    d. simple behavior and varied forms of locomotion.

    ANS: A DIF: Moderate
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Remembering

20. Forensic anthropologists
    a. focus their work on skeletal analysis of individuals.
    b. study skeletal remains from past human populations.
    c. study the evolution of human skeletal traits.
    d. focus their skeletal analysis on early hominins.

    ANS: A DIF: Moderate
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Understanding

21. For which of the following is Franz Boas known?
    a. his early influence on Darwin's theory of natural selection
    b. his assertion that the role of environment is insignificant in the study of human cultures
    c. his work on primate conservation
    d. his union of the study of culture, language, and biology, and the founding of American anthropology

    ANS: D DIF: Moderate
    OBJ: Explain how Franz Boas's research contributed to the development of the four branches of anthropology. TOP: What Is Biological Anthropology? MSC: Remembering

22. Which of the following is a good description of what biological anthropologists do?
    a. They work in the laboratory to understand the genetic relationships among different groups of mammals.
    b. They seek out and excavate sites that have fossil evidence of dinosaurs and other extinct species.
    c. They live with various groups of people for extended periods of time, to learn their language and customs.
    d. They use bones and other materials to study a diversity of ancient and living human populations and primates.

    ANS: D DIF: Moderate
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Understanding

23. Why is biological anthropology considered an interdisciplinary science?
    a. A specific set of disciplines, including anatomy and linguistic studies, are required of all students who intend to go into this discipline.
    b. Compared to other areas of science, biological anthropology is one of the largest fields.
    c. Biological anthropologists often incorporate other fields of study such as chemistry or geology to facilitate their research.
    d. Biological anthropology comprises four different branches: bioanthropology, archaeology, cultural anthropology, and linguistics.

    ANS: C DIF: Moderate
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Is Biological Anthropology? MSC: Remembering

24. What did Boas propose that anthropologists could learn about through careful observations and attention?
    a. race, morality, and primitive religions
    b. primitive humans and their societies
    c. morality, human variation, and cultures
    d. cultures, societies, and peoples' biology

    ANS: D DIF: Moderate
    OBJ: Explain how Franz Boas's research contributed to the development of the four branches of anthropology. TOP: What Is Biological Anthropology? MSC: Understanding

25. How did Boas lay the foundation for scientific anthropology?
    a. He relied on the scientific method.
    b. He evaluated cultures from a personal perspective.
    c. He used genetics to develop theories on human variation.
    d. He demonstrated the variation in humans as a result of moral differences.

    ANS: A DIF: Moderate
    OBJ: Explain how Franz Boas's research contributed to the development of the four branches of anthropology. TOP: What Is Biological Anthropology? MSC: Understanding

26. How can biological anthropologists understand human biological variation?
    a. They can investigate genes, as they are the primary determinant of human variation.
    b. They can study health, as most human variation is the result of health differences.
    c. They can focus on lifestyle, because an individual's lifestyle is the main reason why humans vary.
    d. They can examine how genes, health, and lifestyle all work together to impact human variation.

    ANS: D DIF: Moderate
    OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
    TOP: What Is Biological Anthropology? MSC: Understanding

27. Who created the discipline of American anthropology?
    a. Alfred Kroeber
    b. Margaret Mead
    c. Franz Boas
    d. Rudolf Virchow

    ANS: C DIF: Easy
    OBJ: Explain how Franz Boas's research contributed to the development of the four branches of anthropology. TOP: What Is Biological Anthropology? MSC: Remembering

28. A biological anthropologist would focus on which of the following to learn more about humans?
    a. artifacts
    b. written and oral language
    c. disease and nutrition
    d. public and private buildings

    ANS: C DIF: Easy
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Is Biological Anthropology? MSC: Remembering

29. Your best friend's great-uncle went missing in action during his Pacific tour of duty during World War II. Your friend wants to find out what happened to these enlisted men and women and to bring them home. What course of study would you suggest that your friend pursue in college?
    a. cultural anthropology
    b. ethnographic anthropology
    c. bioarchaeology
    d. forensic anthropology

    ANS: D DIF: Moderate
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Applying

30. Bipedalism in primates means
    a. walking on two feet.
    b. walking on four feet.
    c. walking using two legs with the aid of a tail.
    d. swinging from branch to branch.

    ANS: A DIF: Easy
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

31. Which of the following key attributes of human uniqueness developed during the past 10,000 to 11,000 years?
    a. bipedalism
    b. dependence on domesticated food
    c. complex material culture
    d. nonhoning chewing

    ANS: B DIF: Easy
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

32. An archaeological field school is announced in your anthropology course. The description says that you will travel to Belize to learn about the lives of the ancient Mayans. What, primarily, do you expect to learn during this field school?
    a. what species of nonhuman primate occupies this region
    b. how current populations of immigrants have changed local dialects
    c. how to excavate and study material culture
    d. how to socially navigate life in a Central American setting

    ANS: C DIF: Moderate
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Analyzing

33. Bipedalism
    a. was the first evolutionary development that distinguished humans from other animals.
    b. was possible only after the advent of simple material culture.
    c. occurred after brain expansion in human evolution.
    d. allowed hominins to come out of the trees and make tools 10 million years ago (mya).

    ANS: A DIF: Moderate
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

34. There are six aspects of humanity that together define humans as different from other primates. Of these, which are unique to humans and NOT found in other primates?
    a. speech and arboreal life
    b. the use of material culture and the loss of a honing canine
    c. hunting as a way of getting food
    d. domestication of plants and animals

    ANS: D DIF: Difficult
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

35. What increased early humans' chances of hunting success?
    a. Females led hunting, but all adults were involved.
    b. Hunting was conducted with stone tools and cooperative strategies.
    c. Hunting was always well planned, often using a diagram.
    d. Hunting strategies were developed to include other animals as bait.

    ANS: B DIF: Moderate
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

36. Human production of stone or stone tools is an example of
    a. linguistic comprehension.
    b. subsistence strategies.
    c. material culture.
    d. ideology.

    ANS: C DIF: Easy
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

37. Why is the hyoid bone important?
    a. It is found only in carnivores.
    b. It is found only in organisms with speech.
    c. It provides information about the vocal structure of hominins.
    d. It can be used to differentiate between agricultural and foraging diets.

    ANS: C DIF: Moderate
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

38. What makes it possible for humans to accumulate an amazing amount of information over long periods of time?
    a. social learning
    b. education
    c. social media
    d. mimicry

    ANS: A DIF: Moderate
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

39. What makes us human?
    a. physiology, culture, and planning
    b. biology, culture, and religion
    c. physiology, behavior, and religion
    d. biology, culture, and behavior

    ANS: D DIF: Easy
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

40. Which of the following is one of the six big events of human evolution?
    a. larger brain size
    b. written language
    c. domestication of foods
    d. increase in body size

    ANS: C DIF: Easy
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Remembering

41. Humankind is still evolving, but recent genetic changes are often less interesting to biological anthropologists than the striking evolutionary changes that differentiated our hominin ancestors from apes. Which of the following is a possible reason for this?
    a. Biological anthropologists do not study modern humans; they study only ancient hominins.
    b. Human evolution occurs only in Africa and thus cannot help us to understand a range of contemporary people.
    c. Our species now completely depends on culture for its survival and day-to-day living.
    d. The origin of bipedal walking in our hominin ancestors is more important than variation in genes for disease susceptibility among modern people.

    ANS: C DIF: Difficult
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

42. Which of the following did biological anthropologists conclude about what makes us human after analyzing and comparing humans to nonhuman primates?
    a. Since some nonhuman primates organize when they hunt, hunting is not included as one of the six steps to humanness.
    b. Since chimpanzees have been observed making and using tools, tool use is not considered part of humans' complex material culture.
    c. Although some other animals have the hyoid bone, its size and shape is quite different in humans and reflects the human ability to speak.
    d. The larger brain size of humans is the only significant difference between humans and nonhuman primates.

    ANS: C DIF: Moderate
    OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
    TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
    MSC: Understanding

43. Which of the following is true about the scientific method?
    a. It relies on making hunches about the natural world.
    b. It involves empirical data collection and hypothesis testing.
    c. It is used to support preconceived notions or theories.
    d. It seeks to establish the absolute scientific truth.

    ANS: B DIF: Moderate
    OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
    TOP: How We Know What We Know: The Scientific Method MSC: Understanding

44. What is a hypothesis?
    a. a synonym for theory
    b. a testable statement that could potentially explain specific phenomena observed in the natural world
    c. a statement that concerns scientific facts assumed to be true
    d. a statement unable to be refuted by future investigations

    ANS: B DIF: Easy OBJ: Distinguish between hypotheses and theories.
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

45. A theory is a(n)
    a. narrowly defined testable assertion that can be refuted by an experiment.
    b. explanation of something based upon controversial facts.
    c. explanation of part of the natural world that has been carefully examined and tested.
    d. explanation of part of the natural world that has been less thoroughly tested than a hypothesis.

    ANS: C DIF: Easy OBJ: Distinguish between hypotheses and theories.
    TOP: How We Know What We Know: The Scientific Method MSC: Understanding

46. There is a hypothesis that the origin of human bipedalism was linked to a shift from life in the trees to life on the ground in the grasslands of Africa. Which of the following is true about this hypothesis?
    a. It has been upheld by subsequent scientific data on human origins.
    b. It was developed in consultation with genetic and fossil evidence.
    c. It has been rejected recently as a result of new fossil evidence.
    d. It has become a scientific law.

    ANS: C DIF: Moderate OBJ: Distinguish between hypotheses and theories.
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

47. The study of human remains at the "Body Farm" in Tennessee
    a. has shown how changes in diet with a shift from foraging to farming alter bone growth patterns.
    b. demonstrates the effects of habitual bipedalism in humans and human ancestors.
    c. allows forensic anthropologists to estimate the time of death of deceased humans.
    d. reveals the lifeways of the prehistoric inhabitants of the region around the farm.

    ANS: C DIF: Easy
    OBJ: Identify several different research areas in biological anthropology.
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

48. In the 1980s, anthropologist William M. Bass set up an isolated facility in Tennessee to study which of the following processes?
    a. the importance of social learning in remote areas
    b. the rise of bipedalism in early human ancestors
    c. the deterioration of human bodies under a range of different conditions
    d. how early agriculture such as that practiced on St. Catherines Island was carried out

    ANS: C DIF: Easy
    OBJ: Identify several different research areas in biological anthropology.
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

49. During the decomposition of a human body after death,
    a. autolysis by bacteria provides carbolic acid, which then liquefies the flesh through putrefaction.
    b. the processes of putrefaction of the body and mummification through autolysis result in either a dry tissue mummy or a skeleton, depending on moisture.
    c. putrefaction, the consumption of tissue by bacteria, and autolysis, the self-digestion of $CO_2$ rich tissue, destroys the flesh.
    d. autolysis produces a high bacteria load that causes the flesh to rot rapidly.

    ANS: C DIF: Difficult
    OBJ: Identify several different research areas in biological anthropology.
    TOP: How We Know What We Know: The Scientific Method MSC: Understanding

50. Which of the following is true about people on St. Catherines Island before the arrival of the Spanish?
    a. They were primarily fishermen.
    b. They were hunter-gatherers.
    c. They became the first farmers of the region.
    d. Their health had been worse before the Spanish arrived.

    ANS: C DIF: Moderate
    OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

51. For your biological anthropology research project, you report that you measured the length of 150 gorilla thighbones. After looking at the measurements, you suggest that the two groups you found represent different sexes. What problem might your professor have with this report?
    a. Your report does not attempt to test a hypothesis.
    b. Your report uses the scientific method.
    c. Your report does not identify past literature on the topic.
    d. Your report uses all four fields of anthropological inquiry.

    ANS: A DIF: Moderate
    OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
    TOP: How We Know What We Know: The Scientific Method MSC: Applying

52. Paleoanthropologists hypothesize bipedalism evolved in forested areas. After reconstructing the paleoenvironment of an early biped, they find that this particular hominin did live in a forested area. As a result, their hypothesis is
    a. a scientific law.
    b. still a hypothesis.
    c. a theory.
    d. proof that bipeds evolved in forested areas.

    ANS: B DIF: Moderate OBJ: Distinguish between hypotheses and theories.
    TOP: How We Know What We Know: The Scientific Method MSC: Applying

53. New research in Ethiopia in 2001 changed the way we think about human origins by demonstrating that the earliest hominins lived in woodlands rather than in grasslands, as Darwin had hypothesized. This rejection of an earlier hypothesis is part of
    a. an interdisciplinary approach.
    b. the scientific method.
    c. an empirical theory.
    d. a biocultural approach.

    ANS: B DIF: Moderate OBJ: Distinguish between hypotheses and theories.
    TOP: How We Know What We Know: The Scientific Method MSC: Understanding

54. Which of the following outlines the steps of the scientific method in their proper order?
    a. Identify a problem; state a hypothesis; collect data; test the hypothesis.
    b. State a hypothesis; test the hypothesis; collect data; identify a problem.
    c. Identify a problem; collect data; state a hypothesis; test the hypothesis.
    d. Collect data; state a hypothesis; test the hypothesis; identify a problem.

    ANS: A DIF: Moderate
    OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
    TOP: How We Know What We Know: The Scientific Method MSC: Remembering

**TRUE/FALSE**

1. Biological anthropology deals with all aspects of human biology, both past and present.

    ANS: T DIF: Moderate
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Is Anthropology? MSC: Understanding

2. Physical anthropology and biological anthropology are equivalent.

    ANS: T DIF: Easy
    OBJ: Explain the differences and similarities among the four branches of anthropology and understand what it means to say biological anthropologists practice an interdisciplinary science.
    TOP: What Is Anthropology? MSC: Understanding

3. Biological anthropologists study only Africa, where humans evolved.

    ANS: F DIF: Easy
    OBJ: Identify several different research areas in biological anthropology.
    TOP: What Is Biological Anthropology? MSC: Understanding

4. The environment does not affect humans' biological makeup.

    ANS: F DIF: Moderate
    OBJ: Characterize the importance of the biocultural approach to anthropological inquiry.
    TOP: What Is Biological Anthropology? MSC: Remembering

5. A scientific theory is nothing more than a guess.

   ANS: F DIF: Easy
   OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
   TOP: How We Know What We Know: The Scientific Method MSC: Remembering

**ESSAY**

1. Discuss the six key attributes that make humans unique relative to other species.

   ANS:
   The six distinguishing features of humanity are bipedalism, nonhoning canines, complex material culture and tool use, hunting, speech, and dependence on domesticated food. Note that the order in which these attributes appear, and their timing, can be important parts of a complete and correct answer.

   The commitment to walking on two legs is usually considered the most profound physical difference between humans and other primates. After bipedalism, according to the fossil record, the large honing canine tooth was lost as a result of the ability to make and use tools for processing food. Culture, involving learned behavior transmitted from person to person, facilitates survival through adaptation to varied settings. Material culture is the part of culture that is expressed as objects that humans use to manipulate our environment.

   The archaeological record of past cultures' material remains goes back to the simple rock tools that date from 2.5 mya. Humans require some form of technology to regulate temperature, acquire food, and so on in our varied environments. Some chimpanzees and other primates have simple material culture and even nonmaterial culture. Humans' other key attributes—hunting, speech, and dependence on domesticated foods—appeared much later in human evolution. Hunting refers to cooperative hunting, which likely emerged 1 million or more years ago. Speech is very distinctive of humans but difficult to pinpoint in the fossil record. Domestication of foods is the most recently developed unique human behavior, usually traced to 10,000 years ago. Increasing dependence on culture for survival makes us quite distinct among species and necessitates a biocultural approach to both human origins and human behavior.

   DIF: Difficult
   OBJ: Identify and explain the importance of six major attributes that separate humans from nonhuman animals.
   TOP: What Makes Humans So Different from Other Animals? The Six Steps to Humanness
   MSC: Analyzing

2. Discuss the differences between a hypothesis, a theory, and a scientific law. Give an example of each.

   ANS:

   A hypothesis is a proposed explanation for an observation that can be tested with further analysis or an experiment.

   Example: Darwin's idea that bipedalism was linked to humans shifting from the trees to the ground. It was based on available observations of primate and humans working, and it was testable using anatomical evidence.

   A theory is an evidence-based explanation for some aspect of nature based on a great deal of well-documented information and is much more complicated and well-tested than a hypothesis. (The word *theory* in common language is often used to mean the opposite, referring to ideas that are not well developed or supported.)

   Example: The idea that life has changed over time as part of the process described by Darwin and other scientists, giving rise to new species, known as a theory of evolution.

   Scientific laws are few in number and describe a straightforward and irrefutably true relationship or phenomenon in nature. Though a theory is complex and based on excellent evidence, it is subject to revision and refinement over time. A scientific law is simpler and extremely unlikely to ever be proven entirely wrong.

   Example: Gravity is an irrefutable phenomenon and is incredibly unlikely to ever be disproven.

   DIF: Difficult OBJ: Distinguish between hypotheses and theories.
   TOP: How We Know What We Know: The Scientific Method MSC: Analyzing | Applying

3. Provide a short description of the steps of the scientific method.

   ANS:
   The scientific method includes observations, development of a hypothesis to explain the observations, experimentation to test the hypothesis, systematic collection of data, and development conclusions based on evidence. If the data support the hypothesis, more testing is done. If the data refute the hypothesis, then the hypothesis needs to be changed or replaced.

   DIF: Moderate
   OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
   TOP: How We Know What We Know: The Scientific Method MSC: Analyzing

4. Provide an imaginary example of the proper use of the scientific method.

   ANS:
   This answer should include only examples of what can be tested. It should make reference to empirical data collected by experiment or observation. The student's response should include each step of the scientific method along with a fictional conclusion. There should be a clear reference to the development and testing of hypotheses. This question may even be used on the first day of class as an icebreaker of sorts after a thorough lecture on the scientific method.

   DIF: Difficult
   OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
   TOP: How We Know What We Know: The Scientific Method MSC: Applying

5. Discuss the value of the scientific method in our society.

   ANS:
   The response should include discussions of pharmaceutical and medical testing or other important policy-related science (climate change, technology, etc.). The student should show comprehension of the value of testing and retesting data. For example, do immunization shots administered all at once increase the child's likelihood to develop autism? The answer, we know, is that they do not; however, previous doctored data were used to claim that they do, causing millions of parents all over the world to reduce inoculations or completely neglect them, thereby increasing the incidence of disease—for example, the number of whooping cough cases in the United States.

   DIF: Difficult
   OBJ: Explain the four steps involved in "doing science" (i.e., the scientific method).
   TOP: How We Know What We Know: The Scientific Method MSC: Evaluating