

1. In your reading "Survival of the Sneakiest," you learned that reproduction and the passing on of genes are important in terms of evolution, and that:
 - a. Reproductive fitness may be achieved by a variety of methods
2. In the article you read about gorilla eating habits, the author suggested that that social learning was a way for gorillas in different groups to:
 - a. Learn different ways of eating stinging nettles
3. In the article "Married to the Mob," the author describes:
 - a. How tarsiers exhibit mobbing behavior to drive off a predator
4. According to the article you read about Ardi's skull:
 - a. Ardi represents a mixture of human and Australopithecene traits
5. In your reading "Biracial twins," the author discusses how a German scientist named Johann Blumenbach attempted to create racial classifications by sorting people into the following categories:
 - a. American, Ethiopian, Malayan, Mongolian, Caucasian
6. According to your reading "The Naked Truth," part of the evolutionary reason that *H. sapiens* may have lost their hair of their primate relatives is that: **(WRONG)**
 - a. the ability to dissipate heat more efficiently allowed our brains to develop more without overheating
 - b. increased reliance on hunting meant that our ancestors overheated more easily
 - c. being relatively hairless allows us to cool down more easily
 - d. All of these are correct
7. According to the article "Using Science to Think," deductive research happens when: **(WRONG)**
 - a. an anthropologist conducts field research
 - b. this article doesn't discuss deductive research
 - c. a researcher has already generated a hypothesis before collecting data.
 - d. data is freely gathered before a hypothesis or any explanation is formed.
8. Samuel Morton and Friedrich Tiedemann both used craniometrics as a way to understand and support their ideas about supposed biological 'races,' but came to very different conclusions. What does this tell us?
 - a. We should always consider the biases of the authors or researchers conducting a study.
9. Your professor is aware that most students plan to copy answers into this exam from a shared document.
 - a. True
10. How is a theory different from a hypothesis?
 - a. A theory is an explanation that has been carefully examined and tested.
11. What evidence indicated that *Orrorin tugenensis* was bipedal?
 - a. long neck of the femur

12. *Australopithecus robustus* was likely the longest-surviving species of australopithecine in South Africa. It had
- large molars, a big face, and a sagittal crest.
13. Your phenotype is impacted by your genotype as well as your environment.
- True
14. The Middle Paleolithic prepared-core stone tools that are associated with Neandertals are called
- Mousterian
15. Match these individuals to their species. Use each only once.
- Australopithecus afarensis**
 - Lucy
 - Australopithecus africanus**
 - Taung Child
 - Homo erectus**
 - Nariokatome Boy (Turkana Boy)
 - Neandertal**
 - Old Man from Shanidar (Shanidar 1)
16. Why is the hyoid bone important in the study of human remains?
- The unique physical appearance of the human hyoid helps anthropologists understand the origins of speech.
17. *Homo erectus* skull morphology includes a
- long, low, wide base; thick bones; and large browridges.
18. *Homo erectus* migrated from
- Africa to Asia, then Europe.
19. Anatomical evidence from fossilized hand bones suggests that the precision grip needed to make and use stone tools was present
- in *Homo habilis* and some australopithecines.
20. Evidence for Broca's area in early hominins is a link to our ape ancestors.
- False
21. In the article you read about chimpanzees, the author suggested that certain great apes might possess an understanding of "false belief," which means that these apes:
- might understand if someone else is acting according to an untrue belief
22. The Pleistocene epoch consisted of alternating Ice Ages and Interglacial Periods, and is the primary period with evidence for the evolution of the genus *Homo*.
- True
23. The Out-of-Africa model asserts
- a single origin of modern people and replacement of archaic *Homo sapiens*.
24. In the article "Married to the Mob," the author describes:
- How tarsiers exhibit mobbing behavior to drive off a predator

25. While studying for your exam in Introduction to Biological Anthropology, your classmate identifies *Au. aethiopicus* and *Au. sediba* as two gracile South African australopithecines. What do you tell your classmate?
- Au. sediba* is correct, but *Au. aethiopicus* is not because it is a robust species from East Africa. Another gracile South African species is *Au. africanus*.
26. Why is the Nariokotome Boy fossil significant for hominin evolution? **(WRONG)**
- It is the first fossil to have a brain size comparable to that of modern humans.
 - It is the first hominin to have a fully modern stride.
 - It is the first fossil to have enlarged browridges.
 - It is the first fossil to have teeth identical to those of modern humans.
27. Fossil evidence of cutmarks made with stone tools at early hominin sites suggests that
- meat eating started before *Homo erectus* but increased with more advanced technology.
28. Which of the following are features that differ between bipeds and quadrupeds?
- opposable big toe, length of the leg, shape of the spine, position of the foramen magnum
29. Hunter-gatherers tend to have larger and more robust bones than agriculturalists.
- True
30. What do the marks found on the Bodo cranium indicate?
- the removal of flesh from the skull by tool-using hominins, either as a ritual or as some form of cannibalism
31. The Oldowan Complex is associated with
- Homo habilis* and *Au. garhi*.
32. Bipedalism's advantages over quadrupedalism include
- an increased ability to see greater distances and to carry food.
33. Neandertals
- ate a lot of meat.
34. In your Introduction to Biological Anthropology class, the instructor asks you to examine a fossil skull and determine which species it is. You note there is a sagittal keel at the top of the skull. Based on this information alone, to which species might the skull belong? **(WRONG)**
- Homo habilis*
 - Australopithecus garhi*
 - Australopithecus boisei* (NO)
 - Homo erectus*
35. During the period 2.5–1.0 mya

- a. several hominins, including but not limited to *Homo erectus*, *Homo habilis*, and various australopithecine species, were alive at overlapping time periods, just as earlier periods saw several species of australopithecine alive at once.
- 36. You are working at a hominin fossil site in East Africa when you come across a skull. You note that the brain size is small compared to modern humans, but the canines are nonhoning. Additionally, the face seems very flat. To which species does this skull MOST likely belong?
 - a. *Au. platyops*
- 37. *Homo rudolfensis* and *Homo habilis* are
 - a. often combined into one species, which is called *Homo habilis*.
- 38. Biological anthropology is a science because it
 - a. uses data to help fill gaps in knowledge about how the natural world operates
- 39. *Homo erectus* was likely the first hominin to successfully migrate to regions beyond Africa. Discuss how the biology and culture of *Homo erectus* led to its success on three major continents with varying environments.
 - a. Your Answer:
 - i. The homo erectus designed first designed stone hand axes. This was used for survival and hunting. Not only that, they survived in diverse landscapes, which later led them to migrate to the three major continents with varying environments. They were also able to create fires and used it to their advantage for warmth and cooking. Since they designed stone hand axes, this infers that they had the ability to use rocks and make it into tools. Since, they had tools they were able to protect themselves from animals. Moreover, biologically they had a larger body size, strong teeth, and thick skulls. Since they had strong teeth, they were able to have various diets. In Africa, they had larger bodies because of larger predators, such as hippopotamus. Moreover, the migrated from Africa to Asia, the Europe.
- 40. The scientific method
 - a. involves empirical data collection and hypothesis testing.
- 41. Relative to Oldowan tools, Acheulean stone tools
 - a. required more learning and skill to produce.
- 42. The Shanidar site (WRONG)
 - a. is the earliest evidence of modern humans in western Europe.
 - b. contained no hominin remains but is the earliest occurrence of the prepared platform technique.
 - c. demonstrates that Neandertals practiced cannibalism.
 - d. demonstrates that Neandertals intentionally buried their dead.

43. Biological anthropologists seek to study
- a. humans from biological and cultural perspectives.
44. All fossils of archaic *Homo sapiens* and earlier *Homo erectus* show
- a. expansion of the brain and increased cultural complexity.
45. In your reading “Survival of the Sneakiest,” you learned that reproduction and the passing on of genes are important in terms of evolution, and that:
- a. Reproductive fitness may be achieved by a variety of methods
46. Sub-Saharan Africans show the largest genetic diversity of any human population. This is likely to have resulted from
- a. the accumulation of genetic mutations over long periods of time.
47. The oldest-known hominin is (WRONG)
- a. *Australopithecus afarensis*. (NO)
 - b. *Orrorin tugenensis*.
 - c. *Sahelanthropus tchadensis*.
 - d. *Paranthropus*.
48. The last Neandertals date to _____ yBP.
- a. 40,000
49. The earliest hominins probably lived in which kind of environment?
- a. forested habitats
50. The first hominin to migrate beyond Africa was
- a. *Homo erectus*.
51. Modern anatomical features of Nariokotome Boy include
- a. relatively short arms and long legs.
52. The Shanidar 1 Neandertal is of an older adult male with multiple healed injuries, severe arthritis, and potential blindness. What inference might you draw based on this information?
- a. Neandertals cared for those who were sick and injured.
53. Archaeologists
- a. study past human societies, focusing mostly on their material remains.
54. Much of the current information on the origins of apes & monkeys comes from:
WRONG
- a. Thailand
 - b. None of the above (NO)
 - c. The Congo Basin in Central Africa
 - d. The Fayum in Egypt
55. The four branches of anthropology are
- a. biological, archaeological, cultural, and linguistic.
56. Allen’s and Bergmann’s rules have been used to explain
- a. variation in body shape related to climate.

57. An example of a primatologist is
- Jane Goodall.
58. You are working at a hominin fossil site when you discover a fossilized skeleton. When measured, the brain size is determined to be approximately 600 cc. Its teeth, while larger than that of modern humans, are clearly smaller than in early hominins. You also note that the arms are long and the legs are short. Based on this information, what do you conclude? WRONG
- This is a *Homo habilis* fossil.
 - This is a *Homo erectus* fossil.
 - This is an *Australopithecus boisei* fossil. (NO)
 - This is an *Australopithecus garhi* fossil.
59. The ancestor of *Homo habilis* is
- likely to be *Australopithecus garhi*, according to Tim White's analysis.
60. What is the main difference between the Out-of-Africa hypothesis and the Multiregional Continuity hypothesis?
- Multiregional Continuity suggests a high level of gene flow, while Out-of-Africa argues for no gene flow.
61. According to the article you read about Ardi's skull:
- Ardi represents a mixture of human and Australopithecine traits
62. What have researchers concluded based on the hyoid of the Kebara Neandertal? WRONG
- Without preserved soft tissues, researchers cannot determine whether Neandertals could talk.
 - The distinctly different shape of the hyoid suggests that Neandertals could not talk.
 - The identical morphology of the hyoid to modern humans' hyoid means Neandertals could talk.
 - The larger size of the Kebara hyoid compared to that of modern humans indicates that they spoke with a much lower pitch. (NO)
63. *Homo erectus*'s high degree of adaptive success is evidenced by its
- increased reliance on material culture and apparent increased intelligence.
64. A clear way to define *hypothesis* is
- a testable statement that potentially explains specific phenomena observed in the natural world.
65. The Acheulean Complex
- includes tools known as handaxes.
66. Samuel Morton and Friedrich Tiedemann both used craniometrics as a way to understand and support their ideas about supposed biological 'races,' but came to very different conclusions. What does this tell us?

- a. We should always consider the biases of the authors or researchers conducting a study.
67. The earliest evidence for domestication of plants is from southern China.
- a. False
68. Stone tools are more commonly found on archaeological sites thought to be associated with
- a. *Homo habilis*.
69. An advantage of agriculture over hunting and gathering is that agricultural communities have the ability to create long term food storage to keep a food supply if crops fail.
- a. True
70. To date, the majority of Neandertal fossils have been found in
- a. Europe and western Asia.
71. The Oldowan Complex includes tools like
- a. cobbles, flakes, and choppers.
72. The oldest Neandertal site dates to _____ yBP, at _____.
- a. 130,000; Krapina, Croatia
73. According to your reading "The Naked Truth," part of the evolutionary reason that *H. sapiens* may have lost their hair of their primate relatives is that: (WRONG)
- a. increased reliance on hunting meant that our ancestors overheated more easily
 - b. All of these are correct
 - c. being relatively hairless allows us to cool down more easily (No)
 - d. the ability to dissipate heat more efficiently allowed our brains to develop more without overheating
74. What is the likely explanation for the rapid increase in body and brain size among *Homo erectus*?
- a. greater access to protein and improved nutrition
75. The many stone tools, fragmentary animal bones, and teeth found at Gran Dolina, Spain, indicate that hominins there
- a. processed and consumed animals, including other hominins.
76. The first evidence of modern human traits, including increasing brain size and dependence on material culture, shows up in *Homo*
- a. *habilis*.
77. Ardi was adapted to life on the ground and
- a. in the trees.
78. The first widely reported Neandertal find, the Feldhofer Cave skeleton, was correctly interpreted as
- a. a probable ancestor to modern humans, according to Thomas Henry Huxley.
79. The multiregional continuity hypothesis supposes that

- a. the transition to modernity took place regionally and without involving replacement.
80. *Homo erectus*'s cranial capacity (WRONG)
- a. ranges from 900 cc to 1,200 cc.
 - b. is always more than 800 cc.
 - c. ranges from 650 cc to 1,200 cc.
 - d. is always less than 1,000 cc. (No)
81. *Homo naledi*, recently discovered in South Africa, has a sagittal keel, large browridge, thick cranial bones, and reduced tooth size. The brain size is small, close to 500 cc. Where might this new species fit in the larger pattern of human evolution in Africa?
- a. *H. naledi* seems most likely a member of the genus *Homo*; however, its small brain size is regarded as a primitive hominin trait more reminiscent of the australopithecines.
82. According to the article "Using Science to Think," deductive research happens when:
- a. a researcher has already generated a hypothesis before collecting data.
83. Which trait is present in apes but absent in hominins?
- a. diastema
84. In the article you read about gorilla eating habits, the author suggested that that social learning was a way for gorillas in different groups to:
- a. Learn different ways of eating stinging nettles
85. The *Homo floresiensis* specimen (WRONG)
- a. fits Allen's rule in body proportions. (No)
 - b. had a small brain due to a pathology.
 - c. is due to evolution while isolated.
 - d. lived about 20,000 yBP.
86. Your biological anthropology instructor gives you a hominin skull to analyze. You note the very large cranial capacity and the occipital bun. Based on this information, to which group does the skull MOST likely belong? (WRONG)
- a. early archaic *Homo sapiens* (NO)
 - b. modern *Homo sapiens*
 - c. Neandertals
 - d. *Homo erectus*
87. Darwin's hunting hypothesis, Rodman and McHenry's patchy forest hypothesis, and Lovejoy's provisioning hypothesis are three very different explanations for the rise of hominins, but all three invoke the same anatomical feature. What feature is this?
- a. bipedalism

88. Eugène Dubois was one of the first researchers in the nineteenth century who used the scientific method to test the hypothesis of early human ancestors in Asia with
- fossil evidence.
89. Which of the following is an adaptive characteristic of bipedalism?
- valgus knee
90. The introduction of agriculture led to better health and living conditions.
- False
91. While on an archaeological dig in Europe, you find a stone tool that is rounded on one side and has had flakes removed from the other side, giving it the appearance of a tortoise shell. This is likely to be a(n)
- example of the Levallois technique.
92. What are the differences between *Homo habilis* and *Homo erectus*? WRONG
- Homo habilis* generally has a greater brain capacity than *Homo erectus*.
 - Homo habilis* shows a reduction in the size of the face relative to the brain case. (Wrong)
 - Homo erectus* generally has a smaller brain capacity than *Homo habilis*.
 - Homo erectus* shows a reduction in the size of the face relative to the brain case.
93. Why did Louis and Mary Leakey choose Olduvai Gorge as the place to spend decades doing their research?
- The layers exposed by the gorge were known to include ancient stone tools and animal remains.
94. If fossil species A is consistently recovered from geological deposits beneath layers containing fossil species B, then A is considered older than B. This relative dating technique is based on the principle of:
- Superposition
95. According to lecture, Oldowan tools first appear in: WRONG
- the Miocene (No)
 - the Pliocene
 - the Basal Paleolithic
 - the Upper Paleolithic
96. The earliest fossil evidence of *Homo erectus* in western Europe dates to about
- 1.2 mya.
97. Wernicke's area is the part of the brain that is associated with understanding language.
- True
98. What is significant about the anatomically modern human fossils discovered in Cro-Magnon, France? WRONG

- a. Their overall anatomy reflects increased robusticity, especially the face and jaws.
 - b. They have the vertical forehead of other modern humans, but their nasal aperture is unusually large. (No)
 - c. They have short tibia and wide body trunks similar to the cold-adapted Neandertals.
 - d. They have long tibias and narrow body trunks, reflecting an adaptation to warmer climates.
99. Painted perforated shells are evidence that Neandertals
- a. used body ornaments and symbolism.