Bio.G12-Q3W6-Mammals-Qs. Bank

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. What is the hair of a mammal made of?
a. Cellulose
b. Keratin
c. Chitin
d. Chlorophyll

____ 2. What is a group of cells that secretes fluid called?
a. Diaphragm
b. Placenta
c. Gland
d. Organ

____ 3. Which of the following is characteristic of mammals?
a. Mammary glands
b. Four-chambered heart
c. Diaphragm
d. All of the above

____ 4. What are teeth used primarily for crushing and grinding food called?
a. Molars
b. Canines
c. Incisors
d. Chisel

____ 5. You discover the remains of what appears to be a mammal. Upon examining the teeth of the animal, you find that there are predominantly premolars and molars. What type of lifestyle did this animal probably live?
a. Herbivorous
b. Carnivorous
c. Omnivorous
d. It cannot be determined.

____ 6. What is the name of the hollow, muscular organ in which mammal offspring develop?
a. Placenta
b. Diaphragm
c. Uterus
d. Pouch

____ 7. Which of the following types of mammals develop for a short period within the mother, followed by another period outside the mother in a pouch?
a. Placental
b. Monotreme
c. Marsupial
d. Primate

____ 8. In which of the following areas would you find monotremes?
a. Australia
b. New Guinea
c. Tasmania
d. All of the above

____ 9. During which era did mammals experience a dramatic increase in their populations?
a. Precambrian
b. Cenozoic
c. Mesozoic
d. None of the above

____ 10. What do mammals contract to inhale?
a. Lungs
b. Mammary gland
c. Diaphragm
d. Heart

____ 11. Premolars and molars are used for
a. shearing.
b. crushing.
c. grinding.
d. all of these.

____ 12. Cud chewing is an adaptation found in
a. bears and other omnivores.
b. tigers and other carnivores.
c. many hoofed mammals.
d. all of these.

____ 13. The limbs of antelopes are characterized by
a. greatly elongated finger bones.
b. strong, slender bones.
c. short bones and large claws.
d. none of these.

____ 14. Chimpanzees are intelligent enough to
a. use tools.
c. work machines.

b. use sign language.
d. all of these.

____ 15. Which of these mammals is a monotreme?
a. Tasmanian devil
b. kangaroo
c. chimpanzee
d. platypus

____ 16. Most marsupials are found in _____.
a. America
b. Antarctica
c. Australia
d. Africa

____ 17. The folds in the mammalian brain _____.
a. increase the surface area
b. secrete necessary fluids
c. form ridges for storing learned behavior
d. transfer heat from the body to the environment

____ 18. An animal jaw that has small incisors and canines but wide premolars and molars may belong to a _____.
a. beaver
b. dolphin
c. horse
d. wolf

____ 19. The main advantage of hair is that it _____.
a. protects the skin
b. provides mucus
c. conserves body heat
d. can be shed

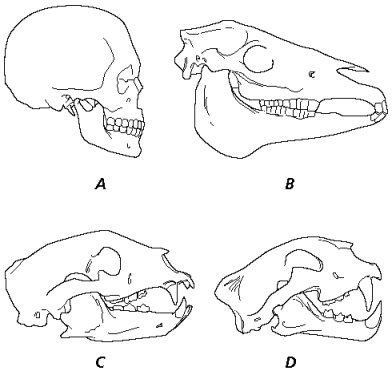

Figure 32-2

____ 20. Which of the skulls shown in Figure 32-2 belongs to an animal that does not hunt?
a. A
b. B
c. C
d. D

____ 21. Which of the skulls shown in Figure 32-2 are built to eat a variety of foods?
a. A and B
b. A and C
c. B and C
d. C and D

____ 22. What is the primary source of food for the animal with skull D as shown in Figure 32-2?
a. plants
b. insects
c. carrion
d. meat

____ 23. According to Figure 32-3, which order of mammals is most closely related to reptiles?

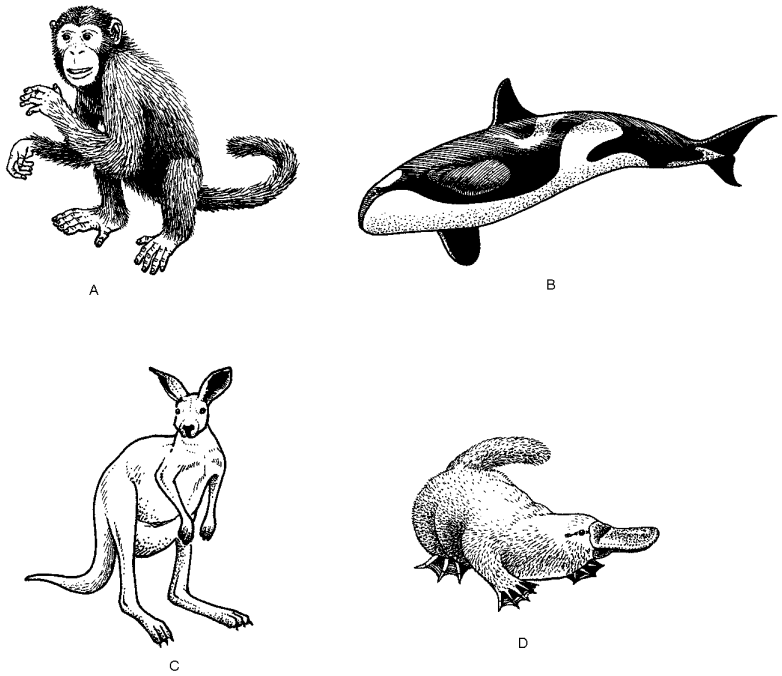

Figure 32-3

a. primates
b. cetaceans
c. marsupials
d. monotremes

True/False
Indicate whether the statement is true or false.

____ 24. The size and shape of a mammal's teeth can give valuable clues about its diet.

____ 25. Plant-eaters such as horses and cows have well-developed canine teeth for piercing food.

____ 26. The teeth of mammals are generally more uniform than the teeth of fishes and reptiles.

____ 27. By chewing their cud and then swallowing it, some mammals help bacteria break down the cellulose in their food.

____ 28. Mammalian limbs are adapted for a variety of methods of food gathering.

____ 29. Moles use their opposable thumbs to grasp objects.

____ 30. One reason mammals are successful is that they guard their young and teach them survival skills.

____ 31. Complex nervous systems and highly developed brains make it possible for many kinds of mammals to learn.

Modified True/False
Indicate whether the statement is true or false. If false, change the identified word or phrase to make the statement true.

____ 32. Both mammals and reptiles share one aspect of their reproductive cycle--<u>external</u> fertilization. _____

____ 33. The nourishment of the young inside the uterus occurs through the <u>placenta</u>. _____

____ 34. The golden age of mammals is the <u>Mesozoic</u> Era. _____

____ 35. The most intelligent mammals are the <u>carnivores</u>. _____

____ 36. <u>Molars</u> are used for crushing and grinding food. _____

____ 37. Teeth called <u>incisors</u> are used to puncture and tear the flesh of prey. _____

____ 38. Marsupials in continents other than Australia lost out in competition with <u>monotremes</u>. _____

Completion
Complete each statement.

39. Female mammals feed their young with milk produced by _____.
40. In addition to milk and sweat, the glands of mammals produce _____, _____, and _____.
41. The milk of mammals is rich in _____, sugars, _____, minerals, and _____.
42. A mammal's muscular _____ expands the _____ bringing air into the lungs with each breath.
43. Like birds, mammals have _____ hearts in which _____ is kept entirely separate from _____.
44. A(n) _____ is a mammal that reproduces by laying eggs.
45. A(n) _____ is a mammal in which the young have a short period of development inside a pouch made of skin and hair found on the outside of the mother's body.
46. The _____ is a hollow muscular organ in female mammals in which the development of offspring takes place.
47. _____ is an adaptation that enables many hoofed mammals to break down the cellulose of plant cell walls into nutrients that they can use and absorb.
48. A(n) _____ is the sheet of muscle located beneath the lungs that is used to expand and contract the chest cavity of mammals.
49. During the Cenozoic era, mammals increased in number while the _____ were decreasing in number.
50. _____ mammal groups evolved from therapsids.
51. The placenta is an organ that passes _____ to and removes wastes from the developing embryo.
52. An example of a monotreme is the _____.

53. _____ resemble reptiles in their method of reproduction.

Short Answer

54. Why are mammals able to live in almost every possible environment on Earth?
55. How do sweat glands help regulate body temperature?
56. What characteristic sets monotremes apart from all other mammals?
57. What environmental changes in Earth might favor the evolution of more reptile-like animals?
58. What characteristics do mammals and birds have in common?
59. Give three features that characterize mammals.
60. What reproductive strategies help mammals to be successful?
61. The fat content of the milk produced in the mammary glands of humans differs from that of marine mammals. In human milk, the percent of fat to total nutrients is three to five percent. The percent of fat to total nutrients in the milk of marine mammals is 30 to 40 percent. How would you account for this difference in fat content?

Mammal	Body Mass (kg)	Average Heart Rate (beats/minute)
Sheep	50	70–80
Harbor porpoise	170	40–110
Horse	380–450	34–55
Elephant	2000–3000	25–50

Table 32-1

62. Based on Table 32-1, what happens to heart rate as body mass decreases?
63. Which animal has the highest body mass in Table 32-1?

Bio.G12-Q3W6-Mammals-Qs. Bank
Answer Section

MULTIPLE CHOICE

1. ANS: B
   Mammalian hair is made of keratin. Mammals are the only organisms with hair.

   PTS: 1
2. ANS: C
   A gland is a group of cells that secretes fluids. Mammals have glands that secrete saliva, sweat, hormones, and other fluids.

   PTS: 1
3. ANS: D
   Mammals have mammary glands for nursing, a four-chambered heart, and a diaphragm for respiration.

   PTS: 1
4. ANS: A
   Molars are teeth used for grinding and crushing food.

   PTS: 1
5. ANS: A
   Herbivores generally have only molars and premolars, used to grind the cellulose found in plants.

   PTS: 1
6. ANS: C
   The offspring of some mammals develop in the uterus, a hollow, muscular organ.

   PTS: 1
7. ANS: C
   Marsupials develop for a short time inside the mother, followed by an extended period in a pouch located on the outside of the mother's body.

   PTS: 1
8. ANS: D
   Monotremes are found only in Australia, Tasmania, and New Guinea.

   PTS: 1
9. ANS: B
   The population of mammals exploded during the Cenozoic Era, sometimes called the golden age of mammals.

   PTS: 1
10. ANS: C
    Contraction of the diaphragm causes the chest cavity to expand and take in large amounts of air.

    PTS: 1

11. ANS: D PTS: 1
12. ANS: C PTS: 1
13. ANS: B PTS: 1
14. ANS: D PTS: 1
15. ANS: D PTS: 1 DIF: B OBJ: 32-3
    NAT: F3 | F4 | F5
16. ANS: C PTS: 1 DIF: B OBJ: 32-3
    NAT: F3 | F4 | F5
17. ANS: A PTS: 1 DIF: B OBJ: 32-1
    NAT: A1 | C5 | C6
18. ANS: C PTS: 1 DIF: B OBJ: 32-2
    NAT: C3 | C5 | C6
19. ANS: C PTS: 1 DIF: B OBJ: 32-1
    NAT: A1 | C5 | C6
20. ANS: B PTS: 1 DIF: B OBJ: 32-2
    NAT: C3 | C5 | C6
21. ANS: B PTS: 1 DIF: A OBJ: 32-2
    NAT: C3 | C5 | C6
22. ANS: D PTS: 1 DIF: A OBJ: 32-2
    NAT: C3 | C5 | C6
23. ANS: D PTS: 1 DIF: A OBJ: 32-3
    NAT: F3 | F4 | F5

TRUE/FALSE

24. ANS: T PTS: 1
25. ANS: F PTS: 1
26. ANS: F PTS: 1
27. ANS: T PTS: 1
28. ANS: T PTS: 1
29. ANS: F PTS: 1
30. ANS: T PTS: 1
31. ANS: T PTS: 1

MODIFIED TRUE/FALSE

32. ANS: F, internal

    PTS: 1 DIF: B OBJ: 32-4 NAT: F3 | F4 | F5
33. ANS: T PTS: 1 DIF: B
    OBJ: 32-4 NAT: F3 | F4 | F5
34. ANS: F, Cenozoic

    PTS: 1 DIF: B OBJ: 32-2 NAT: C3 | C5 | C6
35. ANS: F, primates

    PTS: 1 DIF: B OBJ: 32-3 NAT: F3 | F4 | F5

36. ANS: T PTS: 1 DIF: B
OBJ: 32-1 NAT: A1 | C5 | C6
37. ANS: F, canines

PTS: 1 DIF: B OBJ: 32-1 NAT: A1 | C5 | C6
38. ANS: F, placental mammals

PTS: 1 DIF: B OBJ: 32-2 NAT: C3 | C5 | C6

COMPLETION

39. ANS: mammary glands

PTS: 1
40. ANS: saliva, digestive enzymes, hormones

PTS: 1
41. ANS: fats, proteins, vitamins

PTS: 1
42. ANS: diaphragm, chest cavity

PTS: 1
43. ANS: four-chambered, oxygenated blood, deoxygenated blood

PTS: 1
44. ANS: monotreme

PTS: 1 DIF: B OBJ: 32-4 NAT: F3 | F4 | F5
45. ANS: marsupial

PTS: 1 DIF: B OBJ: 32-4 NAT: F3 | F4 | F5
46. ANS: uterus

PTS: 1 DIF: B OBJ: 32-3 NAT: F3 | F4 | F5
47. ANS: Cud chewing

PTS: 1 DIF: B OBJ: 32-2 NAT: C3 | C5 | C6
48. ANS: diaphragm

PTS: 1 DIF: B OBJ: 32-1 NAT: A1 | C5 | C6
49. ANS:
dinosaurs
reptiles

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6
50. ANS: All

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6

51. ANS: oxygen and food

PTS: 1 DIF: A OBJ: 32-4 NAT: F3 | F4 | F5

52. ANS:
spiny anteater
duck-billed platypus

PTS: 1 DIF: B OBJ: 32-3 NAT: F3 | F4 | F5

53. ANS: Monotremes

PTS: 1 DIF: B OBJ: 32-4 NAT: F3 | F4 | F5

SHORT ANSWER

54. ANS:
As endotherms, they can maintain a fairly constant body temperature.

PTS: 1

55. ANS:
They secrete water onto the skin's surface. As the water evaporates, it removes heat from the body.

PTS: 1

56. ANS:
Monotremes lay eggs instead of giving birth to live young.

PTS: 1

57. ANS:
Answers will vary. Perhaps a warmer climate would allow more reptile-like adaptations. Dryness would favor lizard and snakelike animals, while wet conditions might favor turtle and crocodile-like reptiles.

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6

58. ANS:
Both are endotherms. Birds have feathers to insulate their bodies; mammals have hair for insulation. The origin of both birds and mammals can be traced to reptiles.

PTS: 1 DIF: A OBJ: 32-1 NAT: A1 | C5 | C6

59. ANS:
Mammals have hair; the females nurse their young from mammary glands; they have teeth that vary with the kind of food they eat. A diaphragm and several kinds of glands are also characteristics.

PTS: 1 DIF: A OBJ: 32-1 NAT: A1 | C5 | C6

60. ANS:
Mammals guard their young fiercely and teach them how to survive. The females have mammary glands to nourish their young until they are mature enough to find their own food.

PTS: 1 DIF: A OBJ: 32-4 NAT: F3 | F4 | F5

61. ANS:

Answers may vary. Human infants lead a protected life. Their bodies are not under stress from the cold environment, such as that where marine mammals are born. Because marine mammals have to become active immediately, they need the high energy of the fatty milk. The fat also helps the marine infants to build up a layer of blubber as insulation against the cold.

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6

62. ANS:
The heart rate increases as body mass decreases.

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6

63. ANS:
the elephant

PTS: 1 DIF: A OBJ: 32-2 NAT: C3 | C5 | C6