Bio-H/ Pre-IB

Spring Final Exam Review Questions

Multiple Choice

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

___ 1. The combined portions of Earth in which all living things exist is called the
a. biome.
b. community.
c. ecosystem.
d. biosphere.

___ 2. What is the original source of almost all the energy in most ecosystems?
a. carbohydrates
b. sunlight
c. water
d. carbon

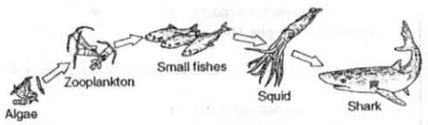

Figure 3–1

___ 3. The algae at the beginning of the food chain in Figure 3–1 are
a. consumers.
b. decomposers.
c. producers.
d. heterotrophs.

___ 4. What is an ecological model of the relationships that form a network of complex interactions among organisms in a community from producers to decomposers?
a. food web
b. an ecosystem
c. food chain
d. a population

___ 5. What is the term for each step in the transfer of energy and matter within a food web?
a. energy path
b. food chain
c. trophic level
d. food pyramid

___ 6. A bird stalks, kills, and then eats an insect. Based on its behavior, which ecological terms describe the bird?
a. herbivore, decomposer
b. producer, heterotroph
c. carnivore, consumer
d. autotroph, herbivore

___ 7. Only 10 percent of the energy stored in an organism can be passed on to the next trophic level. Of the remaining energy, some is used for the organism's life processes, and the rest is
a. used in reproduction.
b. stored as body tissue.
c. stored as fat.
d. eliminated as heat.

___ 8. What is the process by which bacteria convert nitrogen gas in the air to ammonia?
a. nitrogen fixation
b. excretion
c. decomposition
d. denitrification

___ 9. The average year-after-year conditions of temperature and precipitation in a particular region are referred to as the region's
a. weather.
b. latitude.
c. ecosystem.
d. climate.

___ 10. Each of the following is an abiotic factor in the environment EXCEPT
a. plant life.
b. soil type.
c. rainfall.
d. temperature.

___ 11. Which is a biotic factor that affects the size of a population in a specific ecosystem?
a. average temperature of the ecosystem
b. type of soil in the ecosystem
c. number and kinds of predators in the ecosystem
d. concentration of oxygen in the ecosystem

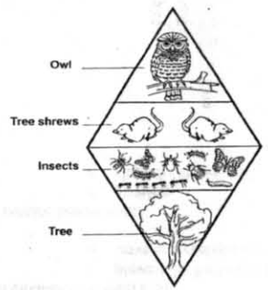

Figure 3–2

___ 12. The trophic levels in Figure 3–2 illustrate
a. the relative amount of energy at each level.
b. the amount of living organic matter at each level.
c. the relative number of individual organisms at each level.
d. that the producers outnumber first-level consumers.

___ 13. An organism's niche is
a. the range of physical and biological conditions in which an organism lives and the way in which it uses those conditions.
b. all the physical and biological factors in the organism's environment.
c. the range of temperatures that the organism needs to survive.
d. a full description of the place an organism lives.

___ 14. A wolf pack hunts, kills, and feeds on a moose. In this interaction, the wolves are
a. hosts.
b. prey.
c. mutualists.
d. predators.

___ 15. A symbiotic relationship in which both species benefit is
a. commensalism.
b. mutualism.
c. predation.
d. parasitism.

___ 16. What is one difference between primary and secondary succession?
a. Primary succession is slow and secondary succession is rapid.
b. Secondary succession begins on soil and primary succession begins on newly exposed surfaces.
c. Primary succession modifies the environment and secondary succession does not.
d. Secondary succession begins with lichens and primary succession begins with trees.

___ 17. Which biome is characterized by very low temperatures, little precipitation, and permafrost?
a. desert
b. temperate forest
c. tundra
d. tropical dry forest

___ 18. What must occur in a population for it to grow?
a. The birthrate becomes higher than the death rate.
b. The birthrate stays the same and the death rate increases.
c. The birthrate becomes lower than the death rate.
d. The birthrate and the death rate remain the same.

___ 19. A biotic or an abiotic resource in the environment that causes population size to decrease is a
a. carrying capacity.
b. limiting nutrient.
c. limiting factor.
d. growth factor.

___ 20. All of the following are limiting factors EXCEPT
a. immigration.
b. competition.
c. predation.
d. human disturbances.

___ 21. If a population grows larger than the carrying capacity of the environment, the
a. death rate may rise.
b. birthrate may rise.
c. death rate must fall.
d. birthrate must fall.

___ 22. Which of the following is a density-independent limiting factor?
a. earthquake
b. disease
c. emigration
d. parasitism

___ 23. The process by which organ systems maintain relatively constant internal conditions is called
a. circulation.
b. organization.
c. homeostasis.
d. teamwork.

___ 24. Which process enables the body to maintain a stable temperature?
a. heating
b. circulation
c. feedback inhibition
d. cellular activity

___ 25. Which system coordinates the body's response to changes in its internal and external environment?
a. lymphatic system
b. nervous system
c. excretory system
d. reproductive system

___ 26. Cells that transmit electrical signals through the nervous system to various organs in the body are called
a. nerves.
b. neurons.
c. organelles.
d. tissues.

___ 27. What is the function of neurotransmitters?
a. to transmit nerve impulses through dendrites
b. to stimulate the production of epinephrine
c. to transmit nerve impulses across synapses
d. none of the above

___ 28. When an impulse reaches the end of a neuron, it triggers the release of
a. neurotransmitters.
b. sodium ions.
c. dendrites.
d. receptors.

___ 29. What is the function of the central nervous system?
a. to relay messages
b. to process information
c. to analyze information
d. all of the above

___ 30. Which division(s) of the peripheral nervous system transmit(s) impulses from sense organs to the central nervous system?
a. sensory division
b. motor division
c. sensory and motor divisions
d. spinal cord division

___ 31. Which general category of sensory receptors detects variations in temperature?
a. thermoreceptors
b. mechanoreceptors
c. photoreceptors
d. pain receptors

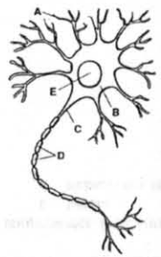

Figure 35–1

___ 32. Refer to Figure 35–1. The cell body of a neuron collects information from which structure?
a. A
b. B
c. C
d. E

___ 33. Sensory receptors that are sensitive to chemicals are found in the
a. skin, body core, and hypothalamus.
b. skin, skeletal muscles, and inner ears.
c. eyes.
d. nose and taste buds.

___ 34. Which of the following is NOT a part of the circulatory system?
a. heart
b. air passageway
c. blood vessels
d. blood

___ 35. Which is the correct direction of blood flow?
a. right atrium → right ventricle → pulmonary artery
b. right atrium → left atrium → pulmonary artery
c. left ventricle → pulmonary artery → aorta
d. left ventricle → left atrium → aorta

___ 36. Compared with the walls of arteries, the walls of veins
a. are thicker.
b. are thinner.
c. lack valves.
d. have more resistance.

___ 37. Which of the following are the smallest of the blood vessels?
a. arteries
b. veins
c. lymphatic cells
d. capillaries

___ 38. The function of valves in the human circulatory system is to
a. stimulate the heartbeat.
b. accelerate the flow of blood.
c. prevent the backward flow of blood.
d. serve as a cushion to prevent friction.

___ 39. Which of the following blood cells contain hemoglobin?
a. red blood cells
b. white blood cells
c. platelets
d. all of the above

___ 40. If a person gets food stuck in his or her windpipe, it probably means that
a. the food entered the mouth incorrectly.
b. oxygen failed to exchange with carbon dioxide.
c. the person temporarily lost the ability to produce ATP.
d. a flap of tissue, the epiglottis, failed to cover the entrance to the trachea when the person swallowed.

___ 41. What structure serves as a passageway for both air and food?
a. pharynx
b. trachea
c. larynx
d. bronchus

___ 42. Air is filtered, warmed, and moistened in the
a. nose and mouth.
b. throat.
c. lungs.
d. pharynx.

___ 43. Air is forced into the lungs by the contraction of the
a. alveoli.
b. bronchioles.
c. diaphragm.
d. heart.

___ 44. Because there is more oxygen in an alveolus than in the blood around it, oxygen diffuses
a. from capillaries into the veins.
b. from arteries into the capillaries.
c. from alveoli into the blood.
d. from blood into the alveolus.

___ 45. Generally speaking, what controls breathing?
a. the brain
b. the lungs
c. the diaphragm
d. the heart

___ 46. The endocrine system
a. affects only the reproductive system.
b. releases hormones into the bloodstream.
c. competes with the nervous system.
d. is made up primarily of glands with ducts.

___ 47. Feedback inhibition means that an increase in a substance will
a. decrease production of that substance.
b. increase production of that substance.
c. increase the production of other substances.
d. stop production of another substance.

___ 48. Which gland fails to produce enough of its hormone in the disease diabetes mellitus?
a. adrenal
b. hypothalamus
c. pancreas
d. parathyroid

___ 49. An infectious disease is one that is caused by
a. heredity.
b. materials in the environment.
c. pathogens.
d. hemophilia.

___ 50. Antibiotics fight infections by
a. preventing viruses from replicating.
b. killing bacteria.
c. killing infected cells.
d. growing green mold that inhibits bacterial growth.

___ 51. The inflammatory response can cause
a. permanent immunity.
b. pain, swelling, and fever.
c. antibodies to bind to antigens.
d. killer T cells to attack infected cells.

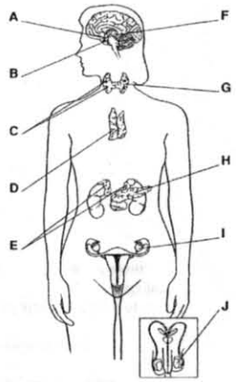

Figure 39–1

___ 52. Figure 39–1 shows the body's
a. hormones.
b. target cells.
c. endocrine glands.
d. exocrine glands.

___ 53. The body's most important nonspecific defense is
a. the skin.
b. cell-mediated immunity.
c. the inflammatory response.
d. permanent immunity.

___ 54. Unlike passive immunity, in active immunity antibodies are produced by
a. the mother of an infant.
b. your own body.
c. other animals.
d. an autoimmune disease.

___ 55. When a person receives a vaccine, his or her body
a. receives antibodies against a specific pathogen.
b. creates plasma cells that can produce antibodies against the specific pathogen.
c. creates antigens to fight the specific pathogen.
d. immediately begins fighting the infection caused by the pathogens.

___ 56. If a person has memory B cells against a certain pathogen, the person is
a. likely to develop that disease.
b. much less likely to develop the disease a second time.
c. able to spread the disease to others through physical contact.
d. probably still sick with the disease.

___ 57. HIV weakens the immune system by killing
a. antibodies.
b. B cells.
c. helper T cells.
d. killer T cells.

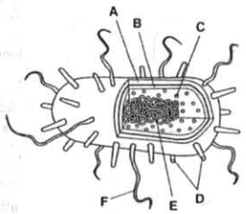

Figure 19–1

___ 58. The structure in Figure 19–1 represents a(an)
a. virus.
b. archaebacterium.
c. methanogen.
d. eubacterium.

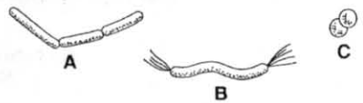

Figure 19–2

___ 59. Which cell shape in Figure 19–2 is called a coccus?
a. A
b. B
c. C
d. none of the above

___ 60. Which of the following can survive either with oxygen or without it?
a. obligate aerobes
b. obligate anaerobes
c. facultative anaerobes
d. bacteriophages

___ 61. Some bacteria are able to survive unfavorable conditions by forming
a. photoautotrophs.
b. capsids.
c. coccus.
d. endospores.

___ 62. Which of the following describes a role of bacteria in the environment?
a. carrying out photosynthesis
b. recycling nutrients
c. fixing nitrogen
d. all of the above

___ 63. Bacteria that break down the nutrients in dead matter into simpler substances that are taken up by plant roots are called
a. endospores.
b. flagella.
c. photoautotrophs.
d. decomposers.

___ 64. The outer protein coat of a virus is called a
a. DNA core.
b. capsid.
c. bacteriophage.
d. tail sheath.

___ 65. All viruses are made of proteins and
a. nucleic acids.
b. prophages.
c. bacteriophages.
d. endospores.

___ 66. What is the basic structure of a virus?
a. DNA or RNA surrounded by a protein coat
b. a capsid surrounded by a protein coat
c. a tail sheath surrounded by tail fibers
d. a tiny cell surrounded by a cell wall

___ 67. A lytic infection concludes with the
a. embedding of viral DNA into the host cell's DNA.
b. production of a prophage.
c. bursting of the host cell.
d. production of messenger RNA.

___ 68. Bacteriophages infect
a. other viruses.
b. bacteria only.
c. any available host cell.
d. cells undergoing the lytic cycle.

___ 69. Unlike lytic viruses, lysogenic viruses do NOT
a. inject their genetic material into the host cell.
b. enter the lytic cycle.
c. lyse the host cell right away.
d. infect host cells.

___ 70. Which of the following is a way that bacteria cause disease?
a. by capsids
b. by nitrogen fixation
c. by conjugation
d. by releasing toxins

___ 71. Viral diseases can be
a. treated with antibiotics and prevented with vaccines.
b. treated with vaccines and prevented with antibiotics.
c. prevented with antibiotics but not treated with vaccines.
d. prevented with vaccines but not treated with antibiotics.

___ 72. Most protists are
a. prokaryotes.
b. unicellular.
c. archaebacteria.
d. anaerobic.

___ 73. In an amoeba, a small cavity within the cytoplasm that stores food is called a
a. gullet.
b. pseudopod.
c. food vacuole.
d. contractile vacuole.

___ 74. The function of conjugation in paramecia is to
a. create new individual paramecia.
b. exchange genetic material, thus increasing diversity of the population.
c. expel excess water, thereby maintaining homeostasis.
d. trigger the release of trichocysts.

___ 75. Which of the statements is true about dinoflagellates?
a. They contain bright yellow pigments.
b. They can be both photosynthetic and heterotrophic.
c. Many species are luminescent.
d. They possess pillbox-shaped cell walls of silica.

___ 76. Giant kelp, the largest known species of algae, is a type of
a. brown algae.
b. green algae.
c. red alage.
d. diatom.

___ 77. Many algae switch back and forth between diploid and haploid stages during their life cycle in a process known as
a. alternation of generations.
b. fusion of opposite mating types.
c. sexual reproduction.
d. asexual reproduction.

___ 78. All fungi are
a. heterotrophic prokaryotes.
b. heterotrophic eukaryotes.
c. autotrophic prokaryotes.
d. autotrophic eukaryotes.

___ 79. Fungi resemble plants in that they both always
a. have stems.
b. grow from the ground.
c. act as parasites.
d. have cell walls.

___ 80. The tangled mass that makes up the body of a fungus is the
a. hypha.
b. rhizoid.
c. mycelium.
d. stolon.

___ 81. Most fungi reproduce
a. asexually only.
b. sexually only.
c. both sexually and asexually.
d. by budding.

___ 82. Rhizoids in molds are analagous to which structures on plants?
a. flowers
b. roots
c. stems
d. leaves

___ 83. The dry, powdered yeast used to bake bread actually contains
a. zygospores.
b. ascospores.
c. conidia.
d. sporangia.

___ 84. Mushrooms are classified as
a. common molds.
b. sac fungi.
c. club fungi.
d. imperfect fungi.

___ 85. Penicillium is classified in phylum Deuteromycota because Penicillium has
a. fruiting bodies.
b. gills.
c. no observed sexual phase.
d. basidiospores.

___ 86. An important role of fungi in an ecosystem is
a. photosynthesis.
b. breaking down dead organisms.
c. making alcohol.
d. killing bacteria.

___ 87. A plant is a(an)
a. unicellular prokaryote.
b. multicellular prokaryote.
c. unicellular eukaryote.
d. multicellular eukaryote.

___ 88. Living on land required that plants
a. evolve photosynthetic pigments.
b. conserve water.
c. exchange gases.
d. have cell walls.

___ 89. Which of the following statements is true about bryophytes?
a. They have specialized tissues that conduct water.
b. They draw up water by osmosis.
c. They are not highly dependent on water.
d. They are a group of plants made up of algae and mosses.

___ 90. Xylem tissue is important to ferns because it
a. can conduct water over long distances.
b. allows water to diffuse into the roots.
c. carries carbohydrates to all parts of the plant.
d. allows ferns to reproduce in dry environments.

___ 91. Fern spores are
a. produced by the gametophyte.
b. produced in the rhizomes.
c. called sori.
d. produced in sporangia.

___ 92. Which of the following includes a plant embryo, a food supply, and a protective covering?
a. pollen grain
b. spore
c. seed
d. gametophyte

___ 93. The gametophytes of gymnosperms are found inside reproductive structures called
a. flowers.
b. cones.
c. embryos.
d. angiosperms.

___ 94. Angiosperms produce seeds inside protective structures called
a. pollen grains.
b. cones.
c. ovaries.
d. petals.

___ 95. Unlike a dicot, a monocot has
a. four or five petals per flower.
b. two cotyledons.
c. taproots.
d. parallel leaf veins.

___ 96. Vascular tissue in plants consists of
a. meristem.
b. xylem and phloem.
c. parenchyma and collenchyma cells.
d. epidermal cells.

___ 97. A carrot is a(an)
a. taproot.
b. fibrous root.
c. monocot.
d. extensive root system.

___ 98. The layer of cells that encloses the vascular tissue in the central region of a root is the
a. endodermis.
b. cortex.
c. xylem.
d. phloem.

___ 99. Starting from the root cap, which of the following is the correct sequence of cell activity in a root?
a. elongation → division → differentiation
b. division → elongation → differentiation
c. differentiation → elongation → division
d. division → differentiation → elongation

___ 100. One of the main functions of stems is to
a. carry out photosynthesis.
b. transport substances between roots and leaves.
c. store carbohydrates.
d. store water.

___ 101. The vascular tissue in a plant's stem
a. has buds.
b. is continuous from the roots to the leaves.
c. carries nutrients up the stem but not down.
d. consists of nodes.

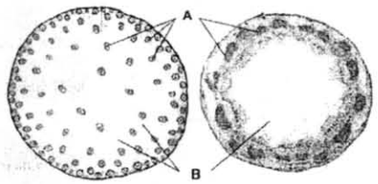

Figure 23–1

___ 102. Figure 23–1 shows cross sections of monocot and dicot
a. roots.
b. leaf veins.
c. root hairs.
d. stems.

___ 103. In dicot plants, secondary growth
a. changes primary xylem and phloem to secondary xylem and phloem.
b. makes the roots longer.
c. results from an increase in the primary xylem and phloem.
d. produces bark and wood.

___ 104. Oxygen and carbon dioxide diffuse in and out of a leaf through the
a. palisade mesophyll.
b. guard cells.
c. phloem.
d. stomata.

___ 105. Most of the photosynthetic activity in plants takes place in the
a. mesophyll.
b. guard cells.
c. stomata.
d. xylem.

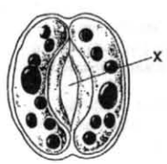

Figure 23–2

___ 106. In Figure 23–2, the X points to a
a. guard cell.
b. mesophyll cell.
c. vein.
d. stoma.

___ 107. The stomata of leaves are usually open in
a. light if a plant has enough water.
b. light if a plant has too little water.
c. darkness if a plant has enough water.
d. darkness if a plant has too little water.

___ 108. Pollen grains are produced by
a. male reproductive structures.
b. female reproductive structures.
c. ovules.
d. flowers.

___ 109. In angiosperms, reproduction takes place in
a. leaves.
b. flowers.
c. cones.
d. pollen.

___ 110. A pollen grain landing near an ovule produces a
a. gametophyte.
b. pollen tube.
c. flower.
d. stamen.

___ 111. In an angiosperm, pollen grains are produced in the
a. stigma.
b. filament.
c. carpel.
d. anther.

___ 112. How many nuclei are contained within an angiosperm embryo sac?
a. two
b. four
c. six
d. eight

___ 113. A ripened ovary that contains angiosperm seeds is called a(an)
a. embryo.
b. seed.
c. fruit.
d. vegetable.

___ 114. The regions of tissue in a plant that produce cells that later become specialized tissues are the
a. roots.
b. stems.
c. leaves.
d. meristems.

___ 115. An animal is each of the following EXCEPT
a. multicellular.
b. autotrophic.
c. heterotrophic.
d. eukaryotic.

___ 116. The upper side of an organism is its
a. dorsal side.
b. ventral side.
c. anterior side.
d. posterior side.

___ 117. An animal that has distinct left and right sides shows
a. radial symmetry.
b. segmentation.
c. several planes of symmetry.
d. bilateral symmetry.

___ 118. Which of the three cell layers in animal embryos gives rise to muscles and much of the circulatory, reproductive, and excretory systems?
a. endoderm
b. ectoderm
c. mesoderm
d. protostome

___ 119. Organisms that spend their entire adult lives attached to one spot are said to be
a. sessile.
b. heterotrophic.
c. flagellated.
d. symmetric.

___ 120. Which of the following best describes the feeding habits of sponges?
a. predators
b. filter feeders
c. parasites
d. detritivores

___ 121. Flagella are important to the essential functions within a sponge because flagella
a. protect the organism from predators.
b. digest food particles trapped within the organism.
c. help move water through the organism's body.
d. produce toxins that make them poisonous to predators.

___ 122. Which are the simplest animals to have body symmetry?
a. sponges
b. algae
c. cnidarians
d. nematocysts

___ 123. Which two functions do nematocysts perform?
a. reproduction and defense
b. capturing prey and locomotion
c. defense and capturing prey
d. locomotion and reproduction

___ 124. Cnidarians have two basic body types, a medusa and a(an)
a. larva.
b. tentacle.
c. polyp.
d. osculum.

___ 125. The body symmetry of a cnidarian is
a. radial in the medusa stage and bilateral in the polyp stage.
b. radial in both the medusa and polyp stages.
c. bilateral in both the medusa and polyp stages.
d. bilateral in the medusa stage and radial in the polyp stage.

___ 126. A cnidarian's gastrovascular cavity is specialized for
a. reproduction.
b. capturing prey.
c. digestion.
d. sensing the environment.

___ 127. Food enters a flatworm's body cavity through a muscular tube called a
a. flame cell.
b. pharynx.
c. ganglion.
d. coelom.

___ 128. Some flatworms have clusters of nerve cells that control the nervous system. Each cluster is called a(an)
a. ganglion.
b. brain.
c. eyespot.
d. flame cell.

___ 129. An adult tapeworm uses its scolex to
a. attach itself to the intestinal wall of its host.
b. digest food.
c. store sperm.
d. store fertilized eggs.

___ 130. Roundworms have a
a. one-way digestive tract.
b. true coelom.
c. mantle.
d. radula.

___ 131. In a pseudocoelom, mesoderm partially lines the
a. germ layer.
b. body cavity.
c. blood vessels.
d. pharynx.

___ 132. Roundworms have a digestive system
a. with two openings.
b. with one opening.
c. within a true coelom.
d. that branches into multiple passages.

___ 133. In earthworms, food is ground into small pieces in the
a. crop.
b. gizzard.
c. pharynx.
d. esophagus.

___ 134. The body of an annelid has
a. a backbone.
b. an external shell.
c. segments.
d. stinging tentacles.

___ 135. Which of these animals has a true coelom?
a. filarial worm
b. tapeworm
c. planarian
d. leech

___ 136. In annelids, nitrogen-containing wastes are eliminated by
a. clitella.
b. parapodia.
c. nephridia.
d. gills.

___ 137. In earthworms, inability to produce offspring might be associated with
a. lack of a true coelom.
b. the inability of a worm to fertilize its own eggs.
c. a malfunction of the nephridia.
d. a malfunction of the clitellum.

___ 138. A type of worm that is an external parasite is the
a. tapeworm.
b. polychaete.
c. leech.
d. earthworm.

___ 139. Mollusks have
a. a pseudocoelom.
b. a true coelom.
c. a body cavity between the ectoderm and mesoderm.
d. no body cavity.

___ 140. The thin layer of tissue that covers a mollusk's body is called the
a. mantle.
b. foot.
c. visceral mass.
d. shell.

___ 141. In the open circulatory system of some mollusks, blood is found
a. only in sinuses.
b. only in blood vessels.
c. in blood vessels and sinuses.
d. only in gills.

___ 142. The appendages of arthropods are
a. found only on the head.
b. hard and immovable.
c. jointed and extend from the body wall.
d. divided into six branches.

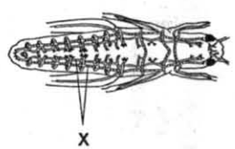

Figure 28–1

___ 143. Figure 28–1 shows the respiratory system of a grasshopper. The structures labeled X are called
a. tracheal tubes.
b. Malpighian tubules.
c. book lungs.
d. book gills.

___ 144. The structures labeled X in Figure 28–1 are filled with
a. water.
b. blood.
c. air.
d. nitrogenous wastes.

___ 145. Typical primitive arthropods had bodies that were composed of
a. many segments.
b. three segments.
c. one segment.
d. no segments.

___ 146. What does molting enable arthropods to do?
a. to breathe
b. to reproduce
c. to grow
d. to eat

___ 147. One similarity between a spider and a crayfish is that both animals have
a. chelicerae and pedipalps.
b. two pairs of antennae.
c. chelipeds and mandibles.
d. a cephalothorax and an abdomen.

___ 148. The respiratory organ in terrestrial chelicerates is the
a. chelicera.
b. book lung.
c. book gill.
d. pedipalp.

___ 149. Spiders feed by
a. swallowing their prey whole.
b. biting off and swallowing pieces of their prey.
c. sucking up prey tissues that have been liquefied by enzymes.
d. sipping nectar through a tubelike mouthpart.

___ 150. The body of an insect is divided into a
a. head and a thorax.
b. head and a cephalothorax.
c. head, a thorax, and an abdomen.
d. cephalothorax and an abdomen.

___ 151. Which of the following is NOT a stage of complete metamorphosis?
a. nymph
b. egg
c. larva
d. pupa

___ 152. The skeleton of an echinoderm is an
a. exoskeleton made of calcium carbonate.
b. exoskeleton made of chitin.
c. endoskeleton made of calcium carbonate.
d. endoskeleton made of chitin.

___ 153. In an echinoderm, the structure that operates like a living suction cup is the
a. madreporite.
b. tube foot.
c. stomach.
d. nerve ring.

___ 154. The water vascular system of echinoderms is involved with each of the following body functions EXCEPT
a. respiration.
b. circulation.
c. movement.
d. reproduction.

___ 155. Which structure is part of an echinoderm's water vascular system?
a. skin gill
b. anus
c. madreporite
d. stomach