- 1. Following statement correctly describes the origin of parasitic Protozoa
  - A) in the life history unicellular parasitic Protozoa appeared earlier than multicellular animals
  - B) in the life history unicellular parasitic Protozoa and multicellular animals appeared at the same chronological historical period
  - C) in the life history multicellular parasitic Protozoa appeared earlier than multicellular animals
  - D) in the life history multicellular parasitic Protozoa appeared later than multicellular animals
  - E) in the life history unicellular parasitic Protozoa appeared later than multicellular animals.
- 2. This significance correctly describes Endoplasmic Reticulum
  - A) it has two membranes. The outer membrane defines the organelle's surface, while the inner membrane is connected to a series of sac-like cristae
  - B) it is a portions of the nuclear envelope extend into the cytoplasm to form an extensive membrane-enclosed factory
  - C) it consists of discrete flattened, membranous sacs called cisternae
  - D) it is an extensive membrane-enclosed factory freely floated in the cytoplasm.
  - E) it function as recycling centers because contains about 40 different enzymes, each specialized for hydrolyzing different types of macromolecules (proteins, nucleic acids, lipids, or carbohydrates)
- 3. This statement corresponds to the understanding of evolution by Lamarck
  - A) according to Lamarck species change through time via the inheritance of acquired characters that individual develops in response to challenges posed by the environment
  - B) Lamarck formulated the theory of evolution by natural selection
  - C) Lamarck claimed that instead of being unimportant or an illusion, variation among individuals in a population was the key to understanding the nature of species
  - D) Lamarck claimed that every organism was an example of a perfect essence, or type, created by God, and that these types were unchanging
  - E) Lamarck ordered the types of organisms into a linear scheme called the great chain of being, also called the scale of nature
- 4. In all representatives of this group of vertebrate animals fertilization is internal
  - A) Anamnia
  - B) Cyclostomata
  - C) Fishes (Pisces)
  - D) Craniata
  - E) Amniota

- 5. The classification of Protozoa on phylum (types) bases on
  - A) the principles of construction of nuclear apparatus, features of flagellums, pulsating vacuole, some microstructures, and types of life cycle
  - B) the principles of construction of nuclear apparatus, organelles of movement, some microstructures, and types of life cycle
  - C) the principles of construction of nuclear apparatus, features of flagellums, pulsating vacuole, some microstructures, and types of reproduction
  - D) the principles of construction of nuclear apparatus, organelles of movement, some microstructures, and types of reproduction and life cycle
  - E) the principles of construction of nuclear apparatus, organelles of movement, some microstructures, features of flagellums, pulsating vacuole, and types of reproduction and life cycle
- 6. The heart rate will increase if
  - A) increase the tone of the sympathetic nervous system
  - B) decrease the tone of the sympathetic nervous system
  - C) decrease the tone of the parasympathetic nervous system
  - D) increase the tone of the parasympathetic nervous system
  - E) both increase the tone of the sympathetic nervous system and decrease the tone of the parasympathetic nervous system
- 7. A miniature shoot with a dormant apical meristem is
  - A) both axillary and terminal bud
  - B) leaf axil
  - C) terminal bud
  - D) bud scales
  - E) axillary bud
- 8. Give the definition of the thallus
  - A) a simple body that lacks vascular tissues and the complex organs of vascular plant in algae and fungi.
  - B) the primary xylem that differentiates late, after adjacent cells have completed their elongation
  - C) that protects an unopened bud in plant, a small, specialized leaf, usually waxy or corky
  - D) the vascular system of monocots, a set of bundles not restricted to forming one ring
  - E) the cavity within a structure such as a sporangium, gametangium, or carpel
- 9. The Seed plants is not characterized by this statement
  - A) an old classification from the 1800s grouped all the seed plants together in a single division, Spermatophyta, with two classes, class Gymnospermae and class Angiospermae
  - B) the commonly accepted divisions of living seed plants are: division Cycadophyta, division Coniferophyta, division Ginkgophyta, division Gnetophyta, and division Magnoliophyta (the flowering plants)
  - C) the sporophyte forms spore of two types: microspores and megaspore
  - D) evolution of seed plants preceded by evolution of a vascular cambium.
  - E) in seed plants dominates gametophyte generation

- 10. The idea about the nature of species had dominated in Western civilization for over 2000 years, and Darwin and Wallace overturned it
  - A) species change through time via the inheritance of acquired characters that individual develops in response to challenges posed by the environment
  - B) species are supernaturally, not naturally, created, static and unchanging
  - C) species change through time and are related by common ancestry
  - D) species are not static but change through time
  - E) diversity of species is explained by the mechanism of natural selection