

1. In the Lepidoptera, the _____ is modified into a long, sucking proboscis for drawing nectar from flowers.
 - a. **maxilla**
 - b. labium
 - c. palps
 - d. chelicerae
2. In the Hexapoda, _____ are typical arthropod internal organs lying between the midgut and colon and are used both as excretory organs and as a means of conserving body fluids.
 - a. **malpighian tubules**
 - b. labiums
 - c. subesophageal ganglions
 - d. ovipositors
3. _____ is the most diverse arthropod taxon.
 - a. **Hexapoda**
 - b. Nematoda
 - c. Chelicerata
 - d. Trilobita
4. The lepidopteran butterflies have a larval stage known as a _____.
 - a. maggot
 - b. **caterpillar**
 - c. second-stage nymph
 - d. planula
5. Insects have a new feeding appendage known as the _____.
 - a. maxilla
 - b. **labium**
 - c. palps
 - d. chelicerae
6. In insects, gas exchange occurs in an extensive network of thin-walled tubes extending throughout the body and open to the outside by paired _____.
 - a. trachea
 - b. **spiracles**
 - c. tracheoles
 - d. taenidia
7. Asynchronous nervous control of flight muscles produces an extremely _____ wing beat.
 - a. slow
 - b. sluggish
 - c. erratic
 - d. **fast**
8. The Diptera, which includes the housefly, have asynchronous flight muscles and balance in flight by using modified hindwings known as _____.
 - a. elytra
 - b. indirect flight muscles
 - c. **halteres**
 - d. resilient thoracic cuticle
9. The Hymenoptera display a wide array of social behaviors and can be easily identified by their _____.
 - a. feathery antennae
 - b. oral tentacles
 - c. **narrow waists**
 - d. long, powerful hindlimbs
10. The _____ have chewing mouth parts, many eat wood, and the forewings are modified into elytra to help protect the hindwings.
 - a. Odonata
 - b. Orthoptera
 - c. **Coleoptera**
 - d. Diptera

11. The _____ are rapid flying predators that have long membranous wings and large compound eyes.
- a. **Odonata**
 - b. Orthoptera
 - c. Coleoptera
 - d. Diptera
12. The _____ have chewing mouth parts, most are herbivorous, but they are best known for their powerful hindlimbs and ability to jump.
- a. Odonata
 - b. **Orthoptera**
 - c. Coleoptera
 - d. Diptera
13. _____ flight muscles connect directly to the wings, instead of attaching only to the exoskeleton.
- a. **Direct**
 - b. Indirect
 - c. Asynchronous
 - d. Synchronous
14. Among the insects with wings, the _____ does not bear wings.
- a. metathorax
 - b. mesothorax
 - c. **prothorax**
 - d. none of the above
15. A number of molts are necessary during the growth period, and each stage between molts is called the _____.
- a. drone
 - b. pupa
 - c. **instar**
 - d. nymph
16. The juveniles of intestinal roundworms travel through both the _____ wall and the wall of the lungs before entering the intestine again.
- a. **intestinal**
 - b. pancreatic
 - c. liver
 - d. spleen
17. The earliest diverging lineage (ie. the most basal) of the Ecdysozoa is the _____.
- a. Uniramia
 - b. Biramia
 - c. **Nematoda**
 - d. Chelicerata
18. Nematode worms use _____ within the pseudocoel to help move through their environment.
- a. **hydrostatic pressure**
 - b. calcareous ossicles
 - c. spicules
 - d. rigid endoskeleton
19. "Velvet worms" or Onychophorans have many pairs of _____ legs.
- a. biramous
 - b. uniramous
 - c. **unjointed**
 - d. jointed
20. A form of suspended animation, _____ is a state that can withstand harsh environmental conditions including extreme temperatures, ionizing radiation, oxygen deficiency, and drought.
- a. inanimation
 - b. cryogenesis
 - c. diapause
 - d. **cryptobiosis**