

To observe and draw the given specimens – earthworm, cockroach, bony fish and bird. For each specimen record

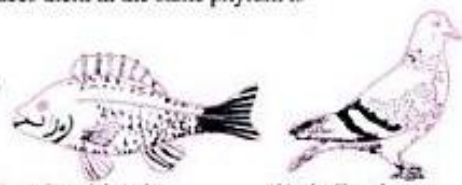
- (a) one specific feature of its phylum
- (b) one adaptive feature with reference of its habitat.

Multiple Choice Questions Choose the correct answer :

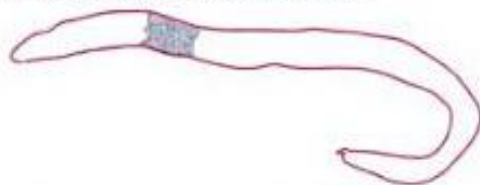
Section-A

(0.5 Mark)

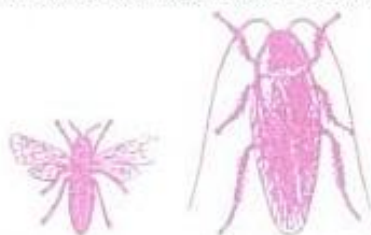
1. Characteristics of phylum Arthropoda are
(a) jointed legs (b) chitinous plates
(c) compound eyes (d) all of these
2. Segmentation in earthworm is
(a) Internal (b) External
(c) Both (a) and (b) (d) None of these
3. Observe the pictures of a bird and a bony fish. The feature that places them in the same phylum is



- (a) pointed heads (b) bulky thorax
(c) presence of scales (d) post anal tails
4. An unlabelled outline diagram of an earthworm is drawn below. The important feature to be drawn and labelled for placing the earthworm in its phylum is



- (a) Eye (b) Clitellum
(c) Annuli (d) Anus
5. Observe the pictures of honey bee and cockroach. The common feature that assigns them to the same phylum is



- (a) wings (b) three pairs of legs
(c) jointed appendages (d) antennae
18. The study of fish is called
(a) Entomology (b) Ichthyology
(c) Phycology (d) Ornithology
19. Birds are
(a) Viviparous (b) Ovoviviparous
(c) Oviparous (d) Any of these

6. Birds have pneumatic bones which help in flying pneumatic bones mean
(a) solid bones (b) hollow bones
(c) bone marrow filled (d) none of these
7. A feature absent in annelids is
(a) Clitellum (b) Pseudocoelom
(c) Metameric segmentation (d) Nephridia
8. Museum specimens are preserved in
(a) Acetone (b) Water
(c) Alcohol (d) Formalin
9. Cockroach is a
(a) Herbivore (b) Carnivore
(c) Omnivore (d) None of these
10. The study of birds is called
(a) Entomology (b) Ornithology
(c) Ichthyology (d) Mycology
11. The first segment of earthworm is called as
(a) Peristomium (b) Prostomium
(c) Clitellum (d) None of these
12. Setae in earthworm is made up of
(a) Lignin (b) Chitin
(c) Cellulose (d) Pectin
13. The study of the external features of an organism without dissecting it is called
(a) Anatomy (b) Histology
(c) Morphology (d) Cytology
14. Which structure in cockroach acts as a tongue?
(a) Mandibles (b) Hypopharynx
(c) Epipharynx (d) Maxillae
15. Number of legs found on thorax of cockroach is
(a) 2 (b) 4 (c) 6 (d) 8
16. Locomotion of earthworm occurs with the help of
(a) Setae (b) Setae and circular muscles
(c) Parapodia
(d) Setae, circular muscles and longitudinal muscles
17. Cycloid scales are present in
(a) Bony fish (b) Cartilaginous fish
(c) Both of these (d) None of these

20. Metamerism is a feature of which phylum
(a) Chordata (b) Annelida
(c) Mollusca (d) Echinodermata
21. In birds, the upper and lower jaws are modified into
(a) beak with 2 teeth (b) beak with 24 teeth
(c) beak with no teeth (d) beak with 32 teeth

Section-B

(1 Mark)

22. Wings in birds is modification of
 (a) Fore limbs (b) Hind limbs
 (c) Feathers (d) Thorax
23. Which of the following is not aerial adaptation?
 (a) Streamlined body (b) Hollow bones
 (c) Presence of gills (d) All of these
24. Which of the following is an aquatic adaptation?
 (a) Presence of feathers
 (b) Fore limbs modified into wings
 (c) Hollow bones (d) Presence of fins
25. The adaptation of earthworm is
 (a) Aquatic (b) Burrowing
 (c) Aerial (d) Arboreal
26. In birds, which limbs are modified for walking, climbing and perching?
 (a) Hind limbs (b) Fore limbs
 (c) Both (a) and (b) (d) None of these
27. What is the similarity in the body of fish and bird?
 (a) Fin (b) Nictitating membrane
 (c) Streamlined body (d) Both (b) and (c)
28. What is the function of lateral line in fish?
 (a) Streamlining (b) Sense organ
 (c) Balance (d) All of these

Answer Key

1. (d) All the features are of phylum Arthropoda.
2. (c) Earthworm's body is both internally and externally segmented.
3. (a) Feature of phylum Chordata.
4. (c) Annuli are grooves (in form of rings) which divide body of earthworm externally.
5. (c) Phylum Arthropoda members possess jointed appendages.
6. (b) Pneumatic bones mean hollow bones, this reduce the weight of the body and help in flying.
7. (b) Pseudocoelom is not a feature of Annelids.
8. (d) Formalin is used to preserve the organisms.
9. (c) Cockroach is an omnivore, i.e., both herbivore and carnivore.
10. (b) Study of birds is ornithology.
11. (a) First segment is called peristomium.
12. (b) Setae are made up of chitin.
13. (c) Morphology is study of external characters of an organism.
14. (b) Hypopharynx, hanging between the two maxillae, acts like a tongue.
15. (c) Cockroach has six pairs of legs in thorax region.
16. (d) Earthworm requires to push itself inside the burrow so involves all the three – setae, circular muscles and longitudinal muscles for locomotion.
17. (a) Cycloid scales are present in bony fish as a part of exoskeleton.
18. (b) Ichthyos means fish.
19. (c) Birds are oviparous (i.e., egg laying).
20. (b) Metameric segmentation is common in members of phylum Annelida. Example: Earthworm.
21. (c) In birds, beak has no teeth.
22. (a) Fore limbs are modified to wings.
23. (c) Presence of gills is an aquatic adaptation.
24. (d) Fins help in movement and locomotion in water.
25. (b) Earthworms are burrowing animals and dig burrows in soil.
26. (a) Hind limbs help in walking, fore limbs are modified as wings.
27. (d) In both fish and bird, eye is covered with nictitating membrane and body is streamlined which help in swimming and flying, respectively.
28. (b) Lateral line is sensory in function.