

Chapter 17 Segmented Worms pages: 355-72.

Question Set A

1. Define metamerism. Why is this significant in relation to evolutionary development? p. 355 - 356
2. What characteristics of phylum Annelida distinguish it from other phyla? p. 360
3. Distinguish among the classes of phylum Annelida. p. 376
4. Describe the annelid body plan, including body wall, segments, and coelom. p. 357
5. Explain how the hydrostatic skeleton of annelids helps them burrow. How is the efficiency for burrowing increased by segmentation? p. 357

Question Set B

1. Define each of the following: prostomium, peristomium, parapodium. p. 357 - 8
2. Explain functions of each of the following in earthworms: pharynx, calciferous glands, crop, and gizzard. p. 364
3. Identify the following main features in the class oligochaetes (make sure to use key terms in your explanation): circulatory system, nervous system, excretory system. 364 - 65
4. How are freshwater oligochaetes generally different from earthworms? 366
5. Use pages 686-87 to answer the following questions:
 - a. What is its primary function of a hemoglobin molecule?
 - b. Is hemoglobin only found in vertebrates? And if **no**, where else can it be found in the animal kingdom?
 - c. Why is blood red?
 - d. Name the two parts that make-up each molecule of hemoglobin.
 - e. In a remote part of New Zealand, a worm-like animal (approximately 2 m long) was discovered by scientists under three feet of moist soil. The segmented worm was removed and returned to the lab for further observations. In the lab, they concluded the following information on the blood/oxygen levels in the segmented worm: for each 100 ml of blood there is approximately 9 grams of hemoglobin. What would be the values in ml of a fully oxygenated blood sample that is 100 ml? (Show your work for credit!!!!!!)