EXERCISE

3 Organ Systems Overview

Master List of Materials

- Torso models
- Articulated skeleton
- Charts
- Gloves
- Safety glasses
- Dissecting tools
- Dissecting tray
- String
- Preserved cat, skin removed

Time Requirement

- Introduction to organ systems: 30 minutes
- Gross anatomy of the cat: 15 minutes if demonstration, 60–90 minutes if students dissect

Laboratory Preparation

1. Most of the models set out for Exercise 2 are also used in this exercise.
2. Remember to include the removable organs with each anatomical model.

Teaching Tips and Students' Misconceptions

Lab Activity 1—Introduction to Organ Systems

- Emphasize that each organ has a specific function and a recognizable shape.
- Have students remove all organs from the torso model as they are identified. Returning each organ to its correct location reinforces the relational position among organs.

Lab Activity 2—Gross Anatomy of the Cat

- Place a dissected cat on demonstration to save time and to reduce the number of preserved specimens required.
- Remind students of the directional terminology used for four-legged animals.

Copyright © 2013 Pearson Education, Inc.

Visit TestBankDeal.com to get complete for all chapters

Exercise 3: Answers to Questions

QuickCheck

1.1 The endocrine system directs long-term changes in the activities of other organ systems, adjusts metabolic activity and energy use by the body, and controls many structural and functional changes during development.

1.2 The major organs of the integumentary system include skin, hair, nails, and sweat glands.

2.1 Anatomical position for a four-legged animal is with the belly surface facing the ground; in humans, the belly faces anterior.

2.2 The term *cephalic* means toward the head of a four-legged animal.

Review & Practice Sheet

A. Matching

1. F
2. D
3. H
4. E
5. G
6. I
7. B
8. L
9. A
10. K
11. C
12. J

B. Fill in the Blanks

1. pericardial cavity; thoracic cavity
2. peritoneum
3. retroperitoneal; peritoneal cavity
4. duodenum
5. urethra

C. Short-Answer Questions

1. The integumentary and lymphatic systems protect the body from infection.
2. The endocrine system coordinates long-term control of body function.
3. The skeletal system stores minerals, such as calcium, in bone tissue.

D. Labeling

FIGURE 3.6

1. diaphragm
2. gallbladder
3. liver
4. duodenum
5. pancreas
6. large intestine (ascending colon)
7. cecum
8. ileum
9. mesentary
10. urinary bladder
11. lesser omentum
12. stomach
13. greater omentum
14. spleen
15. large intestine (descending colon)
16. jejunum

Copyright © 2013 Pearson Education, Inc.

E. Analysis and Application

1. The human uterus is pear shaped while the cat uterus is "Y" shaped with two uterine horns.

2. Trace a bite of food through the digestive system:

Mouth → pharynx → esophagus → stomach → small intestine → large intestine → rectum → anus

Copyright © 2013 Pearson Education, Inc.

Visit TestBankDeal.com to get complete for all chapters