ANSWER KEY

1. monoecious (hermaphroditic)
2. Phylum Cnidaria
3. polyp
4. diffused nerve net and sensory cells (aggregated near mouth)
5. detect light (not image forming)
6. No
7. cilia & muscular contractions
8. organism 4 (frog neurula)
9. Platyhelminthes
10. pharynx (pharyngeal cavity from a planaria)
11. chloragogen tissue
12. **glycogen storage and detoxification**
13. Annelida
14. spermatheca
15. other worm's sperm
16. (posterior) seminal vesicle
17. testes & sperm
18. epididymus
19. esophageal/calciferous glands
20. dorsal blood vessel
21. closed
22. ctenidia
23. filter feeding, gas exchange
24. open
25. yes (it is very reduced)
26. Phylum Mollusca, Class Bivalvia
27. locomotion (foot)
28. P. Echinodermata; water vascular system
29. coelomate
30. oral: cardiac stomach,
    aboral: pyloric stomach
31. Endoskeleton; calciferous plates
32. open
33. diffusion via dermal branchiae
34. madreporite → stone canal → ring canal → radial canal → lateral canal → ampulla & tubefeet
35. hepatic caeca; **digestion and storage**
36. dioecious
37. male
38. gastric mill; grinding food
39. **gizzard**
40. green gland; getting ride of nitrogenous waste
41. kidney
42. a. open
    b. heart → arteries → tissue sinuses ($-O_2$) → central sinus → channels within the GILLS ($+O_2$) → pericardial sinus → heart
    c. hemocyanin
43. gastric mill
44. green gland
45. male
46. **tubules of accessory gland; yes (different shapes)**
47. open; there is no respiratory pigment present
48. spiracles → trachea → tracheoles
49. a. hemimetabolous
    b. mosquito, fly
    c. grasshopper
50. P. Arthropoda;
    1) chitinous exoskeleton, 2) jointed appendages, 3) cephalization
51. fat; protection and storage

52. nephridia

53. mouth → esophagus → stomach → small intestine (duodenum, jejunum, ileum) → large intestine (caecum, colon)→ rectum → anus

54. ureter

55. abdominal and thoracic cavities

56. E = clavicle
P = tibia

57. right atrium →tricuspid → right ventricle → pulmonary semilunar valve→ pulmonary arteries → lungs → pulmonary veins → left atrium → bicuspid → left ventricle → aortic semilunar valve → aorta → all parts of the body → inferior, superior vena cava → right atrium

58. gall bladder; bile

59. submaxillary gland

60. The lymph nodes are part of the lymphatic or immune system; they filter lymph or the body's fluids.

61. parotid gland (the lacrymal gland is not a salivary gland)

62. (15): female
(16): male

63. vagina

64. mature follicles

65. scrotum

66. seminiferous tubules

67. sperm are produced in seminiferous tubules and mature sperm are stored in the epididymis

68. M = uterine horn (or uterus)
E = spleen
O = bladder
W = seminal vesicles

69. (earliest) 18 →17→ 20 → 19 (oldest)

70. holometabolous

71. protostome

72. interstitial cells

73. testosterone

74. Mitosis

75. Male Rat

76. Deuterostome

77. epididymis; maturation of sperm

78. yay. sorry it took me awhile to find it in lab.

79. corpus luteum; estrogen and progesterone

80. (earliest) ovum(25) → 8 cell stage (28) → blastula (24) → gastrula (27) → neurula (26) (latest)

81. anus

82. notochord

83. placenta

84. maternal and embryonic

85. nourish the developing embryo

86. yolk sac

87. rats can give birth to multiple young at one time.

88. a tiny zebra fish (the key idea to remember is that birds and other animals need big eggs because they don't have the placental stage to feed the growing embryo).

89. B

90. C

91. This traps more dead air under their feathers which creates insulation (warmth).

92. increased strength and weight reduction, which are a feature that helps flying

93. Convergent

94. depends on what is in the tank on test day, but here are some examples:

deuterostome: starfish (P. Echinodermata)
protostome: a feather duster (P. Annelida)

95. Kingdom Animalia (just for fun =)).