

LAB PRACTICE QUESTIONS

Disclaimer: These questions are only for extra practice and are suggested only by your UGSI who does not take part in writing any part of the actual lab exam. Slides belong to Bio1A. Remember(!!) that there are actual dissections/setup at stations on the real exam (do not rely on pictures alone!!).

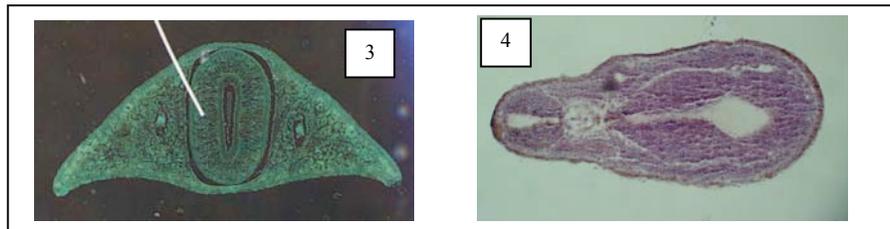
The actual test will be 75 pts in 27 question stations. The practice test here does not necessarily represent 75 pts. The point values of the questions here would vary in value depending upon the complexity of the question and the answer. Questions 1-4 below would be one station in the exam with 4 parts.

1. Is this organism monoecious or dioecious? (1)
2. What Phylum does this organism belong to? (1)
3. What type of body plan does it have? (1)
4. Describe its nervous system? (1)

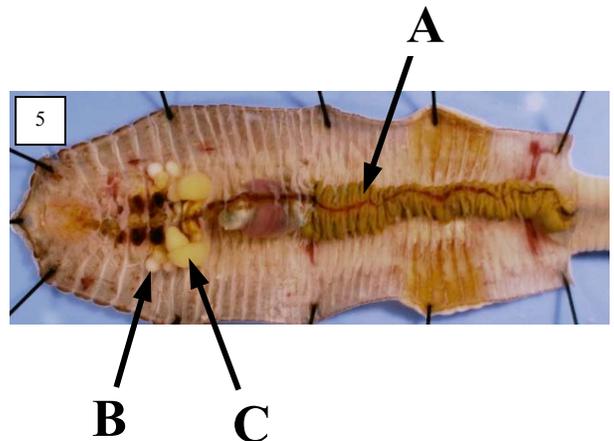


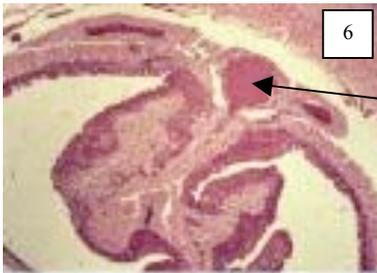
5. What is the purpose of this organism's eyespots? (2)
6. Does this organisms have a coelom? (2)
7. What does this organism use for locomotion? (2)

8. Microscope slides (3) & (4) of cross sections belong to organisms of different phyla. For this question, identify which has a coelom.
9. What phylum does the organism in slide (3) belong to?
10. In slide (3), what basic structure is the pointer pointing to?



11. Identify the structure at Pin A. (5)
12. What is the function of the structure at Pin A. (5)
13. Name the phylum that this organism belongs to. (5)
14. Identify the structure at Pin B. (5)
15. What does the structure at Pin B store? (5)
16. Identify the structure at Pin C. (5)
17. What does the structure at Pin C contain? (5)
18. Name the structure in the rat that is equivalent to the structure at Pin C in this organism. (5)
19. What is the name of the calcium regulation glands?(5)





20. In the microscope slide, identify the structure at the tip of the pointer. (6)

21. What kind of circulatory system does this organism have? (6)

22. Identify the structure at Pin A. (7)

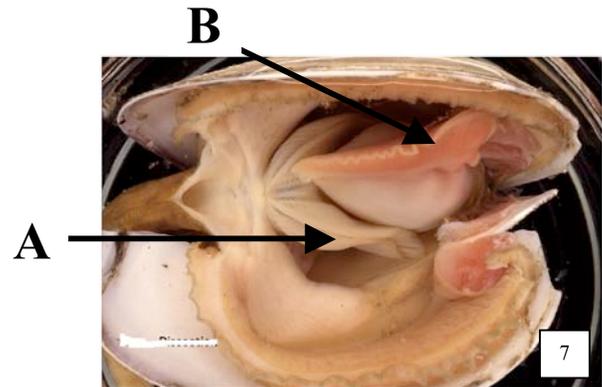
23. Name 2 main functions of the structure at pin A. (7)

24. Does this organism have a closed or open circulatory system? (7)

25. Does this organism have a coelom? (7)

26. Name phylum and class. (7)

27. What is the function of the structure at Pin B. (7)



28. What is the phylum of this organism? What is unique to this phylum? (8)

29. Is it an acoelomate/coelomate? (8)

30. Which stomach is on the oral surface? Which is on the aboral surface? (8)

31. What kind of skeleton does it have? What is it made out of? (8)

32. Does it have an open/closed circulatory system?

33. How does respiration occur? (8)

34. Trace the water vascular system. (8)

35. What is pin M pointing to and what is its function? (9)

36. Is this organism monoecious or dioecious? (9)



M

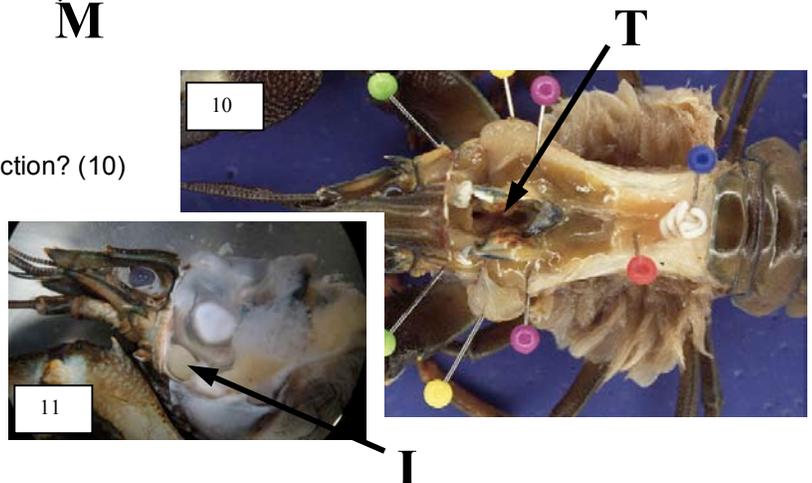
37. What is the sex of this organism? (10)

38. What is Pin T pointing to and what is its function? (10)

39. What is an analogous structure in the cockroach?

40. What is pin I pointing to and what is its function? (11)

41. What is an analogous structure in the human body? (11)

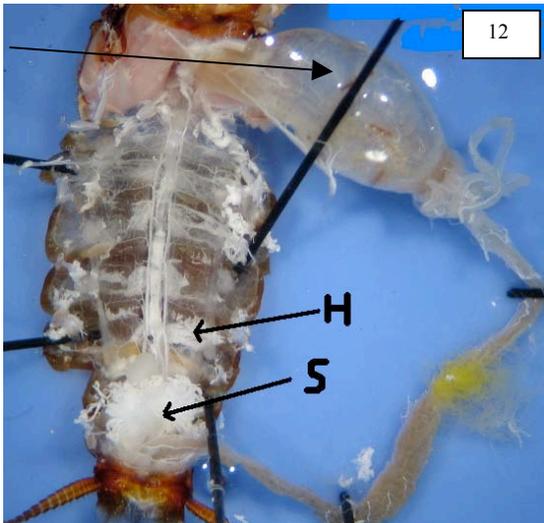


T

11

I

42. a. Does the organism from slide (10) have a closed or open circulatory system?
 - b. Trace the path of the circulatory system.
 - c. What is the respiratory pigment?
43. The gizzard of the cockroach is like the _____ of the crayfish.
 44. The Malpighian tubules of the cockroach are like the _____ of the crayfish.



45. What is the sex of this organism? (12)
46. What is pin S pointing to? Do both sexes have this structure? (12)
47. What kind of circulatory system does this organism have? What type of respiratory pigment does it have? (12)
48. Trace the respiratory system.
49. a. What type of metamorphosis does it undergo?
Give examples of: b. holometabolous
 c. hemimetabolous
50. What phylum does the cockroach belong to and what are three characteristics of this phylum?
51. What is pin H pointing to and what is its function? (12)

52. What organ of the earthworm serves the same function as the kidneys in the rat?

53. Trace a food particle through the digestive tract of the rat.

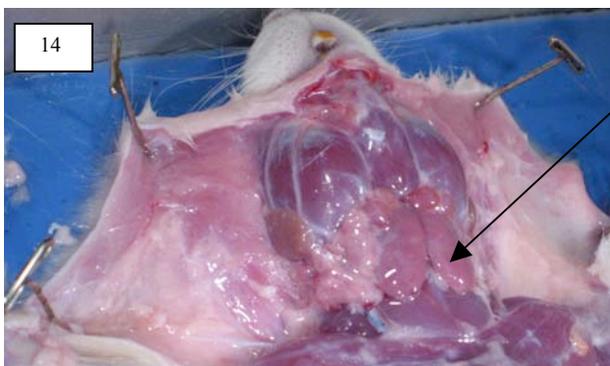
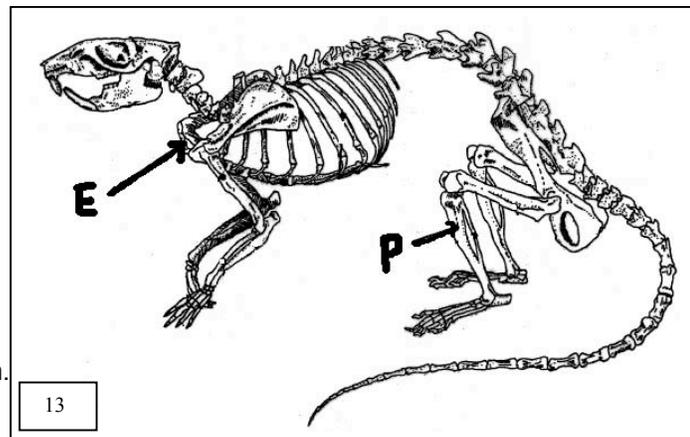
54. Which tube connects the kidney to the bladder?

55. In the rat, the coelom is divided into two cavities; name them.

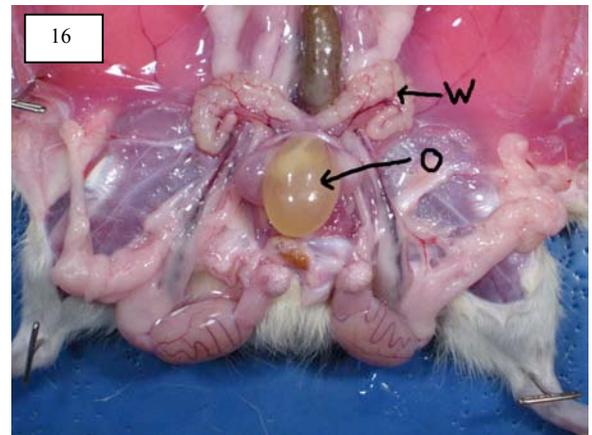
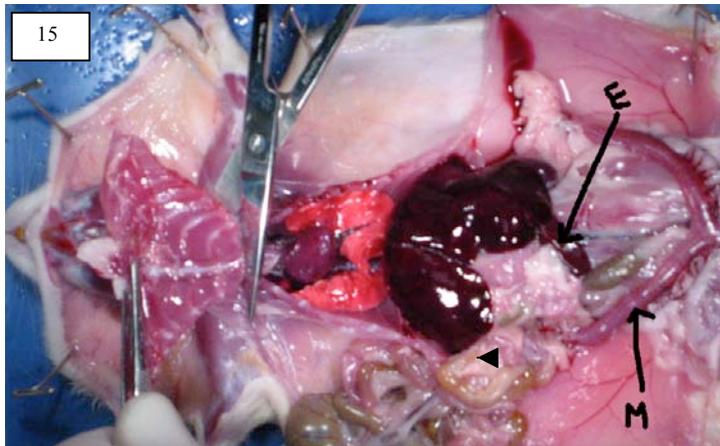
56. What bone is E pointing to? (13)
What bone is P pointing to? (13)

57. Trace the cyclic path of blood, starting at the right atrium.

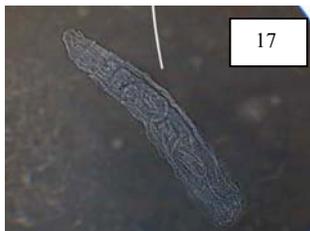
58. What structure was present on the sheep pluck but not in the rat? What liquid did this structure contain?



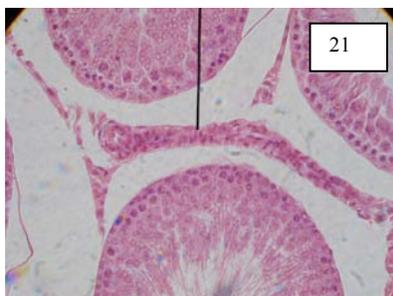
59. What throat gland is the pointer pointing to? (14)
60. The lymph nodes are located on top of the glands referred to in question 58. Why are they important?
61. Name a salivary gland, not already referred to.



62. What is the sex of the rat in (15), of the rat in (16)?
63. In the female, what structure connects the uterus to the outside?
64. You can locate the ovaries because they are highly vascularized and have many bumps on their surface. What are the bumps?
65. In the male, where are the testes located?
66. If you sliced open the testes, what would you find?
67. Where are sperm produced and where are the mature sperm stored?
68. Identify structures at the following pins: M, E, O, W. (15,16)

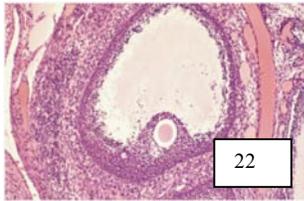


69. Arrange the stages of development in order from earliest to latest (17-20)
70. What type of development does the fruit fly undergo?
71. Is the fruit fly a protostome or deuterostome?



72. What type of cells is the pointer pointing to? (21)
73. What hormone do these cells produce? (21)
74. What type of cell division do they undergo? (21)
75. What organism does this slide belong to? (21)
76. Is it a protostome or deuterostome? (21)

77. After sperm form in the seminiferous tubules, where do they go? What happens here?



22



23

78. Slide 22 is a picture of a mature follicle.

79. What is the pointer in slide 23 pointing to? What hormones does it secrete?



24



25



26



27

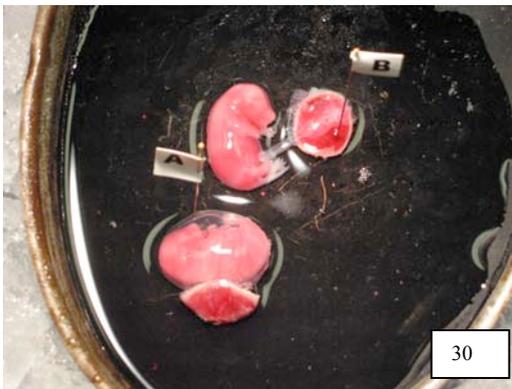


28

80. Identify the stages for slides 24-28 and put them in order from earliest to latest.

81. In a deuterostome, the blastopore becomes the _____.

82. What is the pointer in slide 29 pointing to?



30

83. What is flag B pointing to in slide 30? (30)

84. What type of tissue is it?
Paternal/Maternal/Embryonic?

85. What is its function? (30)

86. What serves the same function in the chick? (30)

87. In the female rat, the uterine horn is very long compared to that in humans. Why?

88. Which has a bigger egg? A tiny zebra fish or a large elephant?

89. Which is not a distinguishing characteristic of the phylum Chordata?

- (a) notochord
- (b) a vertebral column (backbone)
- (c) a dorsal hollow nerve cord
- (d) a post-anal tail
- (e) pharyngeal gill slits

90. Which one is not a distinguishing characteristic of the tetrapod group?

- (a) loss of dorsal fins
- (b) hinged, well muscled limbs
- (c) adults have four legs
- (d) interlocking vertebral column



29

91. Why do birds fluff up their feathers on cold mornings?
92. Birds such as the pigeon have extensive fusion of bones. Why?
93. Bat and bird wings are an example of what kind of evolution?
94. Give an example of a deuterostome and an example of a protostome that is in the tank.
95. What kingdom does the organism in slide 32 belong to?

