Discovery of the Cell

In 1665 a thin slice of cork showed tiny boxes Robert Hooke called cells. Then came living cells (1674) and the nucleus (1831).

Name: Date: Score: ____ / 17

A. Fill in the blanks

1. In 1665 Robert Hooke observed thin slices of ____.

2. Hooke named the boxes "cells" from the Latin word cella, meaning a small ____.

3. In 1674, ____ saw the first living cells in pond water.

4. Robert Brown discovered the ____ in 1831.

B. True or False

5. Hooke's cork cells were living. True / False

6. Leeuwenhoek saw living cells. True / False

7. The nucleus was discovered before the cell. True / False

8. The word "cell" came from the honeycomb-like boxes in cork. True / False

C. Assertion and reason

9. Assertion (A): Hooke saw only cell walls in cork.
Reason (R): Cork is made of dead cells.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

10. Assertion (A): Leeuwenhoek discovered the nucleus.
Reason (R): Leeuwenhoek observed living cells in pond water.

(a) Both A and R are true, and R explains A
(b) Both A and R are true, but R does not explain A
(c) A is true, R is false
(d) A is false, R is true

Answer: _____

D. Choose the correct option

11. Who coined the term "cell"?

(a) Leeuwenhoek
(b) Hooke
(c) Brown
(d) Schwann

Answer: _____

12. Hooke's cork cells showed only:

(a) nuclei
(b) cell walls
(c) chloroplasts
(d) cytoplasm

Answer: _____

13. The nucleus was discovered by:

(a) Hooke
(b) Purkinje
(c) Robert Brown
(d) Virchow

Answer: _____

14. Leeuwenhoek's important discovery was:

(a) cell wall
(b) living cells in pond water
(c) nucleus
(d) cell theory

Answer: _____

E. Short answer questions

15. Why did Hooke see empty boxes in cork?

16. Arrange in order with years: nucleus, cork cells, living cells.

F. Match the columns

17. Match each item in Column A with the correct item in Column B.

Column A	Column B	Your answer
1. Robert Hooke	(a) Cork cells, 1665	1 → ____
2. Leeuwenhoek	(b) Living cells, 1674	2 → ____
3. Robert Brown	(c) A small room	3 → ____
4. Latin cella	(d) Nucleus, 1831	4 → ____

Detailed solutions

1. cork

2. room

3. Leeuwenhoek

4. nucleus

5. False. Cork cells are dead; he saw only the walls.

6. True. He saw free-living cells in pond water.

7. False. The cell (1665) came first; the nucleus in 1831.

8. True. They looked like small rooms.

9. (a) Dead cells keep only their walls; R explains A.

10. (d) A is false (Robert Brown did, 1831); R is true.

11. (b) Hooke. In Micrographia, 1665.

12. (b) cell walls. The cells were dead.

13. (c) Robert Brown. 1831.

14. (b) living cells in pond water. 1674.

15. Cork is made of dead cells. Their living contents were gone, leaving only the cell walls.

16. Cork cells (Hooke, 1665) → living cells (Leeuwenhoek, 1674) → nucleus (Brown, 1831).

17. 1 → (a), 2 → (b), 3 → (d), 4 → (c). Each discovery needed better microscopes.