

**Body Systems
Answer Key
[New Exam]**

1. —Nothing; the shape would not be accepted by receptors on B. — It would not bind with the receptors in area I.

2.



3. 2

4. pancreas

5. *Examples:*

Pair 1– The muscular system enables an organism to move. The nervous system detects stimuli and sends messages. The muscles receive messages carried by nerves and contract, resulting in movement.

Pair 2 – The respiratory system brings in oxygen and the digestive system breaks down food so that both substances are available to cells to make ATP.

Pair 3 – The circulatory system carries wastes. The excretory system removes wastes from the blood and excretes them.

6. *Examples:*

A Lung	B oxygen
A Small intestine	B glucose
A Large intestine	B water

7. 2

8. *Examples:*

Malfunctions associated with the selected system:

- digestive - ulcer
- circulatory - heart attack
- respiratory - emphysema
- excretory - kidney stones
- nervous - Parkinson's disease

Direct or indirect cause of malfunction identified:

- ulcer - excess stomach acid
- heart attack - high fat diet
- emphysema - smoking

- kidney stones - genetic cause
- Parkinson's disease - brain stops making a sufficient supply of critical chemical (dopamine)

Effect the malfunction has on any other system:

- ulcer - causes bleeding
- heart attack - reduces oxygen to the brain
- emphysema - reduces oxygen in the circulatory system
- kidney stones - stimulates nervous system resulting in pain
- Parkinson's disease - involuntary muscular contractions

9. *Examples:* heartbeat – It would speed up. breathing – It would speed up. sweating – It would increase.

10. 4

11. 1

12. 3

13. 3

14. 3

15. 1

16. 4

17. 3

18. 1

19. 3

20. 2