

**MOCK UPCAT 14 (SCIENCE UPDATE): ANSWER KEY WITH  
EXPLANATIONS**

1. **C**

When two objects are at thermal equilibrium, they are of the same temperature. Therefore, there is no driving force for heat to transfer.

2. **B**

Buffers prevent drastic changes in pH of a system. Buffers neutralize added acid or base inside the body because too much acidity or alkalinity may cause various complications to our body organ, especially to the kidney.

3. **B**

The Law of Acceleration states that the acceleration of an object increases when the force applied is high or the mass of the object is low, thus:

$$a = \frac{F}{m}$$

$$a = \frac{50\text{kg m/s}^2}{5 \text{ kg}}$$

$$a = 10 \text{ m/s}^2$$

4. **B**

5. **C**

6. **C**

7. **B**

8. **D**

9. **B**

10. **A**

11. **B**

12. **D**

13. **B**

14. **C**

15. **B**

16. **D**

17. **B**

18. **C**

19. **C**

20. **A**

21. **D**

22. **A**

23. **D**

24. **C**

25. **D**

26. **D**

27.