

1. Acid	Substance that releases hydrogen ions in solution	
2. Acidosis	Condition in which the human body's pH levels fall below 7.35	
3. Alkalosis	Condition in which the human body's pH levels rise above 7.45	
4. As respiration decreases, does the partial pressure of carbon dioxide increase or decrease?	Hypoventilation, pCO ₂ increase	
5. As respiration decreases, does the pH levels rise or fall?	Decrease pH level	
6. As respiration increases, does the partial pressure of CO₂ increase or decrease?	Hyperventilation, pCO ₂ decrease	
7. As respiration increases, does the pH levels rise or fall?	Increase in pH levels	
8. As the metabolic rate decreases, what happens to the pCO₂?	Decrease	
9. As the metabolic rate decreases, what happens to the pH levels in the blood?	Increase because less hydrogen lying around	
10. As the metabolic rate decreases, what happens to the respiratory rate?	Make less CO ₂ , decrease respiratory rate.	
11. As the metabolic rate increases what happens to the pH levels of the blood?	Decrease because make more hydrogen	
12. As the metabolic rate increases, what happens to the pCO₂?	Increase	
13. As the metabolic rate increases, what happens to the respiratory rate	Produce more CO ₂ , increase respiratory rate	
14. Base	Substance that binds to hydrogen ions in solution	
15. Carbon Dioxide	Mixes with water in the blood to form carbonic acid	
16. Causes of respiratory acidosis	Hypoventilation, parasympathetic drug, re-breathing	
17. Causes of respiratory alkalosis	Hyperventilation, shock, high altitude	
18. Describe what happened to the concentration of ions in the urine when the pCO₂ was lowered	Decreased concentration of ions in urine because all the ions are in the blood	
19. Describe what happened to the concentration of ions in the urine when the pCO₂ was raised	Increased in ions in urine so ions are being secreted.	
20. Difference between a strong acid and a weak acid	Strong acid has complete dissociation. Weak acid retains some hydrogen ions.	
21. Difference between a strong base and a weak base	Strong base - all the sites have hydrogen ions attached to it. Weak base - have some open site.	
22. Explain how the renal system compensates for metabolic acidosis	Increase renal secretion of hydrogen	
23. Explain how the renal system compensates for metabolic alkalosis	Increase renal reabsorption of hydrogen. Increase in bicarbonate would lead to an increase in secretion of bicarbonate.	
24. Explain how the respiratory system compensates for metabolic acidosis	Decrease in pH so high hydrogen concentration. Hyperventilation - alkalosis to compensate for acidosis	
25. Explain how the respiratory system compensates for metabolic alkalosis	Increase in pH so low hydrogen concentration. Hypoventilation - compensate acidosis for alkalosis.	
26. How does the renal system compensate for conditions of respiratory acidosis?	Increase in hydrogen concentration because decrease in pH so increase renal secretion of hydrogen	
27. How does the renal system compensate for conditions of respiratory alkalosis?	Increase in pH means decrease in hydrogen concentration so increase renal absorption of hydrogens	
28. Metabolic acidosis	Decrease in amount of bicarbonate	
29. Metabolic alkalosis	Increase in amount of bicarbonate	
30. Normal range of pH levels of blood and tissue fluids in the human body	Broad range: 7.35-7.45, Narrow range: 7.38-7.42	
31. pH	Term used to denote hydrogen ion concentration in body fluids	
32. Respiratory acidosis	Decrease in pH. Increase in bicarbonate.	

33. Respiratory alkalosis	Increase in pH. Decrease in bicarbonate.
34. What are some causes of metabolic acidosis?	Diarrhea, diabetes mellitus, exercise (make lactic acid)
35. What are some causes of metabolic alkalosis?	Vomiting
36. What are the body's two major physiological buffer system for compensating acid and base imbalances?	Bicarbonate and phosphate
37. What happens to blood pH levels during hyperventilation? Why?	Increase in pH because the individual is releasing too much CO ₂ (partial pressure CO ₂ decrease)
38. What happens to blood pH levels during rebreathing? Why?	Decrease in blood pH levels. Retain too much CO ₂ (pp CO ₂ increase)