

Question 1: Label each compound as an Arrhenius acid, Arrhenius base, or neither.

HBr _____

NaCl _____

LiOH _____

Ca(OH)₂ _____

H₂SO₄ _____

Cl₂ _____

K₂SO₄ _____

Mg(OH)₂ _____

Question 2: Write the conjugate acid of each compound below.

NH₃ _____

SO₄²⁻ _____

OH⁻ _____

HCO₃⁻ _____

PO₄³⁻ _____

Question 3: Write the conjugate base of each compound below.

H₃O⁺ _____

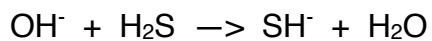
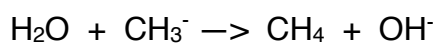
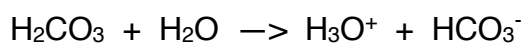
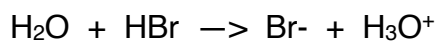
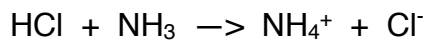
HCO₃⁻ _____

HCl _____

HF _____

H₂SO₄ _____

Question 4: For each reaction below, label the Bronsted-Lowry acid, base, conjugate acid, and conjugate base.



Question 5: Are the following bodily solutions acidic, basic or neutral?

Bodily fluid	pH	Acidic, Basic, Neutral
saliva	6.80	
pancreatic fluid	8.62	
blood	7.35	
urine	5.90	
bile	8.4	

Question 6: Explain the difference between respiratory acidosis and alkalosis.

Question 7: You have a patient that begins to hyperventilate. Your treatment is to have her to breathe into a paper bag held over her mouth. Provide an in-depth explanation of the chemical processes occurring in this treatment? Be sure to include topics such as: CO_2 concentration, blood pH, equilibrium, and Le Chatelier's principle.