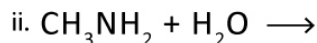


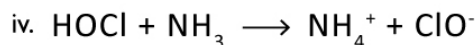
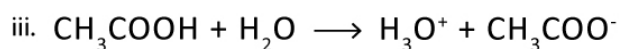
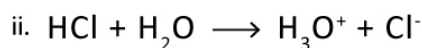
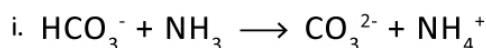
# Acid-Base Reaction

Name: \_\_\_\_\_

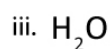
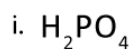
- ① Using your knowledge of the Brønsted-Lowry theory of acids and bases, complete the following acid-base reactions and indicate each conjugate acid-base pair.



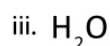
- ② Identify the conjugate acid-base pairs in the following reactions. Write A, B, CA, and CB below the appropriate substance.



- ③ Write the formula for conjugate bases formed by the following acids.



- ④ Write the formula for conjugate acids formed by each of the following bases.



- ⑤ Classify each of the following pH values as acidic, basic, or neutral.

i. 0

ii. 1.5

iii. 10

iv. 7

v. 7.5

vi. 13

vii. 1

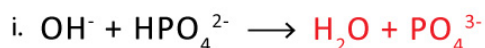
viii. 6

# Acid-Base Reaction

Name: \_\_\_\_\_

## Answers

- ① Using your knowledge of the Brønsted-Lowry theory of acids and bases, complete the following acid-base reactions and indicate each conjugate acid-base pair.

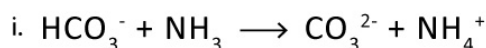


$\text{HPO}_4^{2-}$  and  $\text{PO}_4^{3-}$  make one pair.  $\text{OH}^-$  and  $\text{H}_2\text{O}$  make the other.

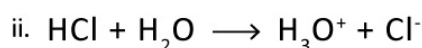


$\text{CH}_3\text{NH}_2$  and  $\text{CH}_3\text{NH}_3^+$  make one pair.  $\text{OH}^-$  and  $\text{H}_2\text{O}$  make the other.

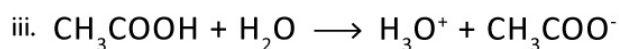
- ② Identify the conjugate acid-base pairs in the following reactions. Write A, B, CA, and CB below the appropriate substance.



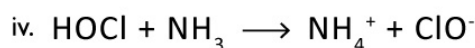
A      B      CB      CA



A      B      CA      CB



A      B      CA      CB



A      B      CA      CB

- ③ Write the formula for conjugate bases formed by the following acids.



- ④ Write the formula for conjugate acids formed by each of the following bases.



- ⑤ Classify each of the following pH values as acidic, basic, or neutral.

i. 0      Acidic

ii. 1.5      Acidic

iii. 10      Basic

iv. 7      Neutral

v. 7.5      Basic

vi. 13      Basic

vii. 1      Acidic

viii. 6      Acidic