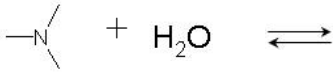
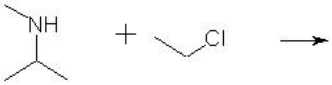
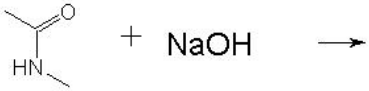
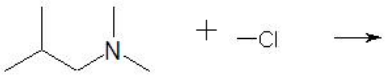
Complete the following reactions. Circle the most favored products.

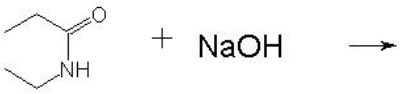
1. 

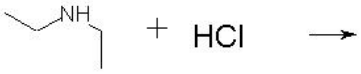
2. 

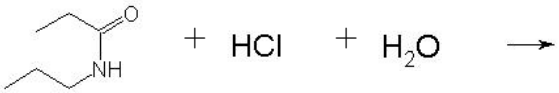
3. 

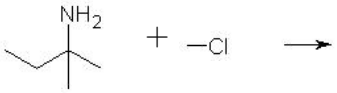
4.

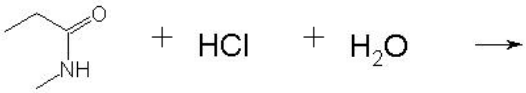
5. 

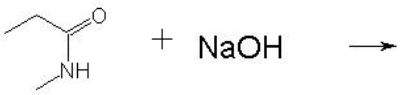
6. 

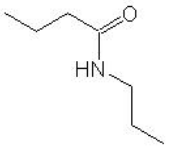
7. 

8. 

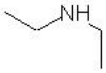
9. 

10. 

11. 

12. 

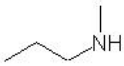
+ HCl + H_2O →

13. 

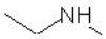
+ H_2O ⇌

14.

+ H_2O ⇌

15. 

+ HCl →

16. 

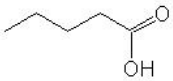
+ H_2O ⇌

17.

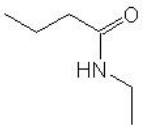
+ NH_3 →

18.

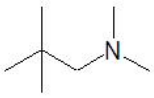
+ HCl + H_2O →

19. 

+ NH_3 $\xrightarrow{[-H_2O]}$

20. 

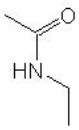
+ HCl + H_2O →

21. 

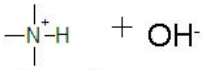
+ –Cl →

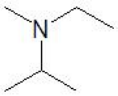
22.

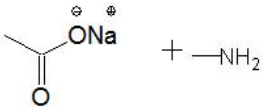
+ –Cl →

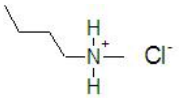
23. 

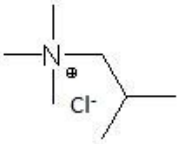
$\xrightarrow[\Delta]{H_2/Ni}$

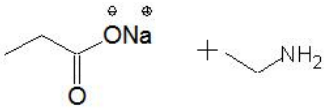
Question 1: 

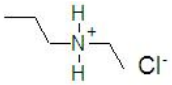
Question 2: 

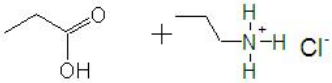
Question 3: 

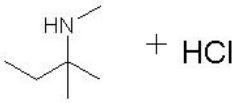
Question 4: 

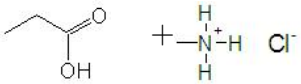
Question 5: 

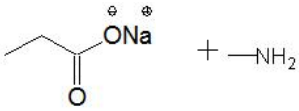
Question 6: 

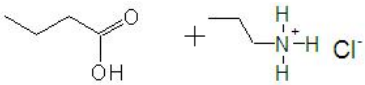
Question 7: 

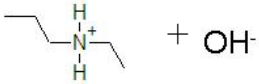
Question 8: 

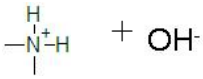
Question 9: 

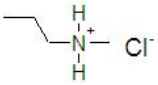
Question 10: 

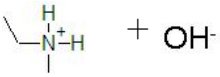
Question 11: 

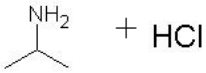
Question 12: 

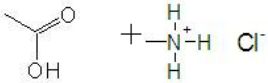
Question 13: 

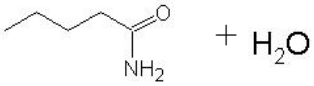
Question 14: 

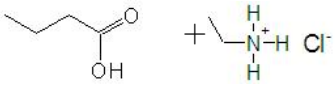
Question 15: 

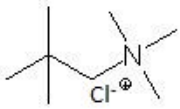
Question 16: 

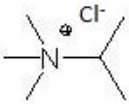
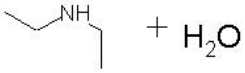
Question 17: 

Question 18: 

Question 19: 

Question 20: 

Question 21: 

Question 22: 

Question 23: