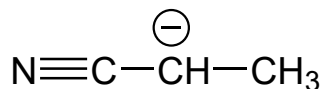
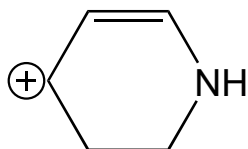


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4A. (6 pts) For the Lewis structure below, **supply any missing lone pairs of electrons** and draw ONE additional, significant resonance forms. **Rank** each of the resonance contributors in order of importance and **explain** your answers. (If any are equivalent, be sure to indicate so in your answer.)



4B. (9 pts) For the Lewis structure below, **supply any missing lone pairs of electrons** and draw TWO additional resonance forms that are significant. **Rank** each of the three resonance contributors in order of importance and **explain** your answers. (If any are equivalent, be sure to indicate so in your answer.)

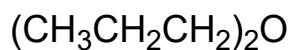


4C. (10 points) Which of the following compounds, when pure, can form hydrogen bonds?  
(write **yes** or **no** in the box; no explanation is needed.  
Also, draw each compound as a bond-line drawing.



H-bond?

bond-line drawing



H-bond?

bond-line drawing



H-bond?

bond-line drawing