1. The flow chart can be drawn a number of ways, depending upon what you include and how you organize it. Here is one version.

To further clarify the chart, you might also include examples of each step, with the appropriate curved arrows.

2. (a) Mechanism:

(b) Mechanism:
Mechanism: You are not required to know this mechanism, but working it out may help you to learn the reaction products. The ketone is more susceptible to nucleophilic attack than the amide (due to resonance), so the ketone is reduced first.

4. Let's examine the two assertions of the statement separately.

\textit{NaBH}_4 and \textit{LiAlH}_4 are hydride sources}. This assertion is true. Both can transfer hydride ion (H\(\cdot\)) to the carbon of a carbonyl group, resulting in carbonyl reduction:
NaBH$_4$ and LiAlH$_4$ are proton sources. This assertion is false. Consider the formal charge change that would occur if either BH$_4^-$ or AlH$_4^-$ transferred a proton (H$^+$) to (for example) the oxygen atom of a carbonyl group. BH$_4^-$ would become BH$_3^2-$:

\[ \text{O} \quad \text{H} \quad \text{BH}_3 \quad \text{OH} \quad \text{X} \quad +\text{BH}_3 \]

Similarly, AlH$_4^-$ would become AlH$_3^{2-}$. A -2 formal charge on elements this far to the right on the periodic table is very unlikely. In addition a molecule that has a formal negative charge is already electron-rich, and therefore unlikely to accept even more electrons. This is why BH$_4^-$ and AlH$_4^-$ are nucleophiles, and not electrophiles or acids.