6. In the given transformation, which of the following is the most appropriate reagent?

$$\begin{array}{c} \text{CH=CHCOCH}_3 \\ \\ \xrightarrow{Reagent} \\ \text{HO} \end{array}$$

- (1) NaBH₄
- (2) NH₂-NH₂, OH
- (3) Zn Hg / HCl
- (4) Na, Liq.NH₃

Solution:

In NH_2 - NH_2 , OH, the medium is basic so it will not have any effect on the OH group in the reagent.

Hence option (2) is the answer.