

Chem 2500  
Assignment # 11 - Types of Reactions  
Answer Key

1a) Addition  $\rightarrow$  H-Br addition across  $C=C$

b) Reduction  $\rightarrow$   $H_2$  added across  $C=O$ .

$\rightarrow$   $LiAlH_4$  is a reducing agent.

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2a) Substitution  $\rightarrow$  replacement of Br by CN

b) Elimination  $\rightarrow$  loss (elimination) of  $H_2O$ .

c) Pericyclic (Diels Alder).

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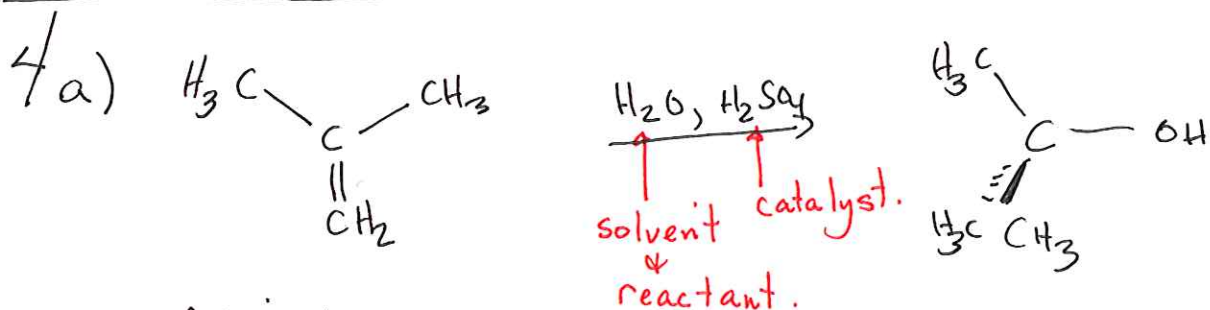
3a). Substitution  $\rightarrow$  replacement of I by SR.

b) Addition  $\rightarrow$   $Br_2$  added across  $C\equiv C$ .

c) Reduction  $\rightarrow$   $H_2$  added across  $C=O$ .

$\rightarrow$   $LiAlH_4$  is a reducing agent.

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Addition  $\rightarrow$   $H_2O$  added across  $C=C$ .

~~4a)~~