Chemistry 2500 (Fall 2017): Assignment #11 – Types of Reactions

1. What type of reaction is this?

2. Classify the following reactions as substitution, addition, elimination, oxidation, reduction, pericyclic or rearrangement.

a)
$$CH_3$$
 \longrightarrow CH_3 \longrightarrow CH_3 \longrightarrow CN \longrightarrow CN

b)

H_OH

$$H_3C$$
 CH_2CH_3
 $H_2SO_4, 100^{\circ}$
 $H_3CHC = CHCH_3 + H_2C = C$
 CH_3
 CH_3

3. Classify each of the following reactions according to their type. If a reaction can be classified as more than one type, choose only the most appropriate. *No explanation is required.*

c) OH
$$H_3CH_2CH_2C$$
 H $H_3CH_2CH_2C$ H

4. Classify the following reaction as substitution, addition, elimination, oxidation, reduction or rearrangement. Identify the components that are solvent, reactant or catalyst.

$$CH_3$$
 CH_3 CH_3 CH_2 CH_3 CH_3