HOMEWORK ASSIGNMENT #2 ORGANIC CHEMISTRY II

(due Wed 8 Feb ) 20 pts total

Your name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_answers\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2.1.One-Chiral Center Stereo Assignments ( 6 pts total/1 pt each)**

1. Assign the chirality (R or S) of the structures below:





R or S R or S R or S



**H**

1. draw the Fischer projection of R-2—butanol (2 pts) CH3 OH

**2.2. 1 & 2-center Stereo Language (4 pts) C2H5**

**Erythro & Threo Are The Same As Entgegen & Zusammen T F**

**D & L is the same as R & S T F**

**A meso structure is achiral\* T F**

**(+) sugars are always D; (-) sugars are always L T**

**\*achiral means center doesn’t have 4 non-equivalent groups. Meso structures do**

**2.3. Two- center Stereo assignments (10 pts/ 1 pt each)**

Cheech Chong



B

C

D

A

* + 1. **Assign the R/S character of chiral centers A🡪D**

A = \_\_R\_\_\_\_\_ B=\_\_\_\_S\_\_\_\_ C= \_\_\_\_R\_\_\_\_ D=\_\_\_R\_\_\_\_

2.3.2 Are Cheech and Chong: **meso enantiomers diastereomers** (circle answer)

Harold Kumar



Y

Z

W

X

* + 1. Assign the R/S character of chiral centers W🡪Z

W= \_\_\_R\_\_\_\_ X=\_\_\_S\_\_\_\_\_ Y= \_\_S\_\_\_\_\_\_ Z=\_\_\_R\_\_\_\_

2.3.4 Are Harold and Kumar: **meso enantiomers diastereomers** (circle answer)

Y

W