**Exam 3: Chem 4524 Organic Chemistry II Alfred State College Spring 2015**

**The Final Boxing Match of the Season 60 pts**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1 pt**

**Fill in the boxes below. One (1) point for every correct answer**

**1)**

100% anti-Markovnikoff;

>90% yield;

~ 2 minutes



**2)**



**3)**



**4)**





**5)**

**6)**

+



 **main product by-product**

**7)**





**\_\_\_/14 (includes name)**

**Chem 4524 Spring 2015 exam 3 boxes (continued) 2/5**



**8)**



**9)**

**10)**





**11)**

 **main product (party ! party !)**

**12)**



 **main product**

**13)**



**14)**



**`**

 **+**



**15)**

 **+**

**\_\_\_/12 product by-product**

=PAr3

**Chem 4524 Spring 2015 exam 3 boxes (continued) 3/5**



**16) Product of problem 15**

**17)**



**hint: analogous to ozonolysis**

**18)**





**19)**

**20) 3-methyl-3-pentanol; mark. only**



 **90% yield; < 2 minutes**



**21)**



**22)**

 **ethanal +**

**23)**



**\_\_\_/13**

**Chem 4524 Spring 2015 exam 3 boxes (continued) 4/5**

 **Main product here**

**24)**





**25)**

 **26)**



**27)**



intermediate product A

**28)**





**29)**



**30)**



**31)**

 **alkyl sulfonate**

 **intermediate A**

**A**

**\_\_\_/10**

 **+ -**

**Chem 4524 Spring 2015 exam 3 boxes (continued) 5/5**

**32)**



**33)**



 **+**

 **product by-product**

**34)**



**35)**



**36)**



 **product by-product**

**37)**



**38) fill-in : Cats rule, dogs \_\_\_\_\_\_\_\_\_\_\_\_\_**

\_\_/11