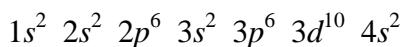


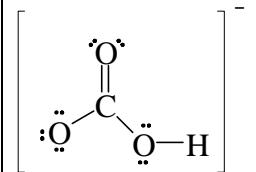
**CHEM1611 Chemistry 1A (Pharmacy) - June 2004**

**2004-J-2**

•	nitrogen dioxide	+IV	
	lead(II) acetate	+II	Pb <sup>2+</sup> (aq), CH <sub>3</sub> CO <sub>2</sub> <sup>-</sup> (aq)
Mg(ClO <sub>4</sub> ) <sub>2</sub>	magnesium perchlorate	+VII	



- 

	$\cdot\ddot{\text{S}}=\text{C}=\ddot{\text{O}}\cdot$	$[\cdot\ddot{\text{C}}=\text{N}\cdot]^-$
YES	NO	NO

- hydrogen bonding in 1-propanol (strong)  
dipole dipole forces in 1-propanethiol (relatively weak)

**2004-J-3**

- 

tetrahedral	$sp^3$	tetrahedral
tetrahedral	$sp^3$	trigonal pyramidal
trigonal planar	$sp^2$	trigonal planar
tetrahedral	$sp^3$	bent
trigonal planar	$sp^2$	bent

1.80 g

**2004-J-4**

2.80 g

**2004-J-5**



0.0825 L

3.69

## 2004-J-6

•

1-methylcyclohexene		
2-methyl-2-butene		
cyclopentanone	excess CH <sub>3</sub> OH H <sup>⊕</sup> / heat	

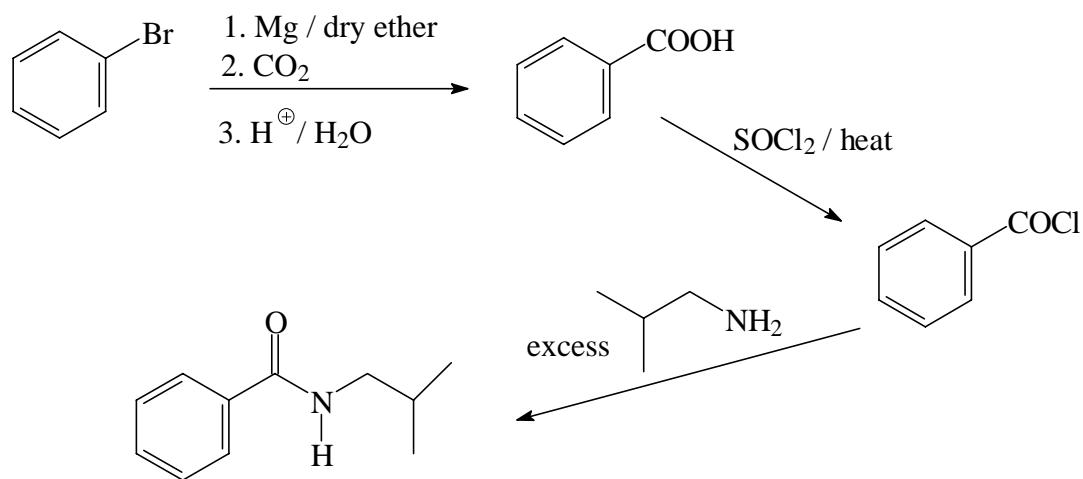
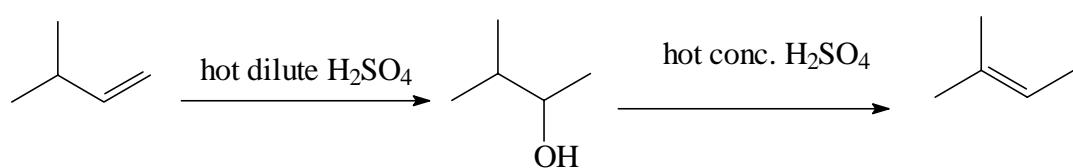
2004-J-7

•

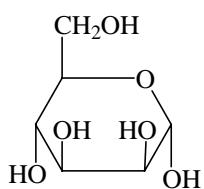
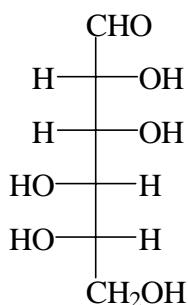
NaOH	
CH <sub>3</sub> COCl	
(CH <sub>3</sub> ) <sub>2</sub> NH	

2004-J-8

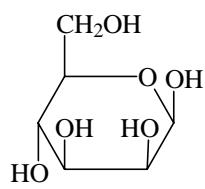
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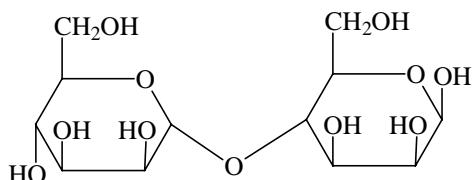
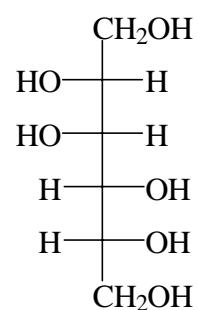
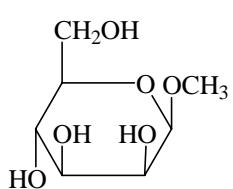
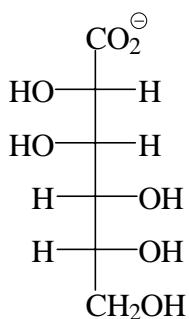
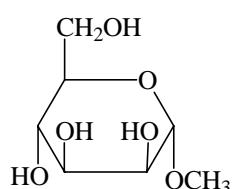
2004-J-9



α-anomer

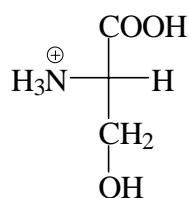


β-anomer

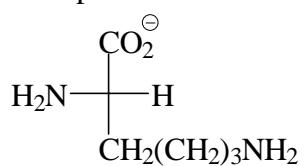


**2004-J-10**

•



pH = 12.0



pH = 5.6

