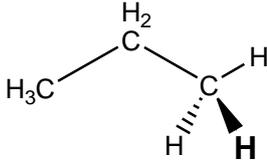
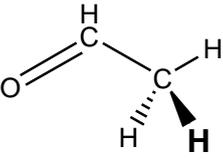
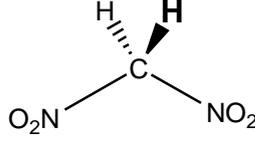
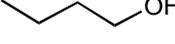
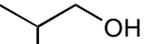
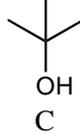
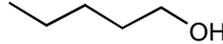
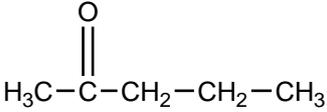
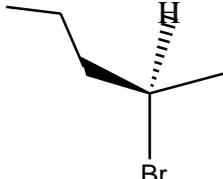
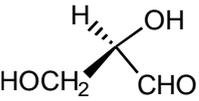
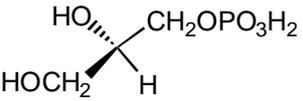
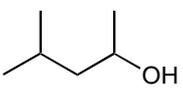
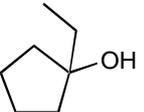
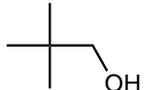
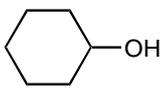
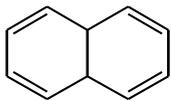
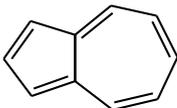
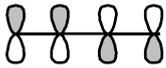
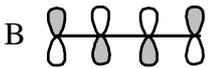
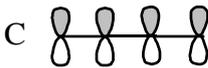
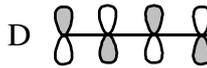
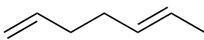
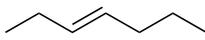
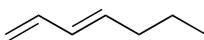
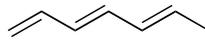
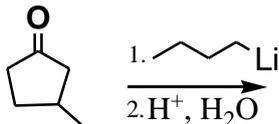
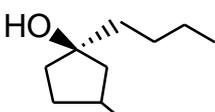
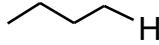
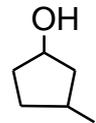
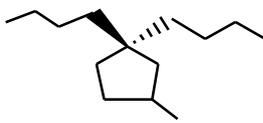
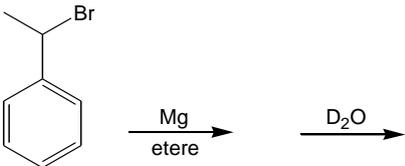
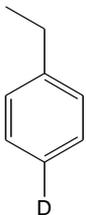
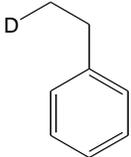
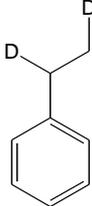
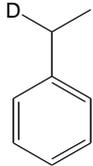
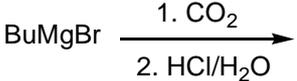
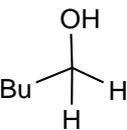
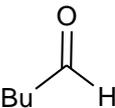
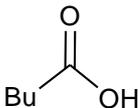
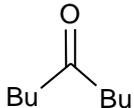
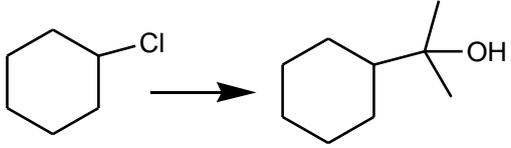


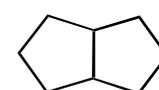
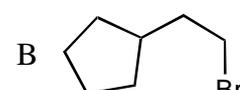
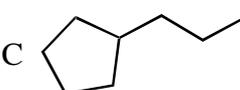
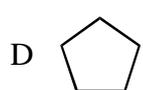
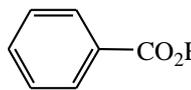
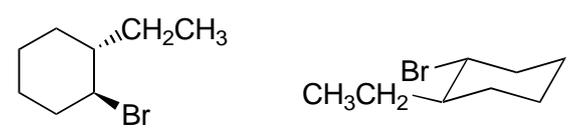
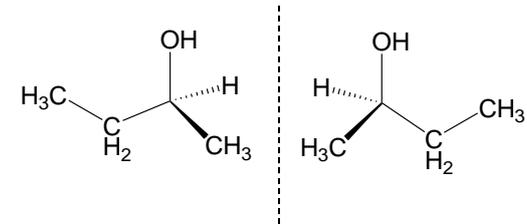
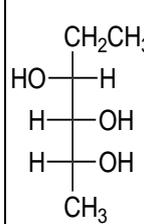
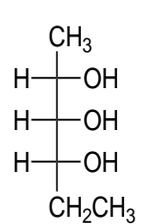
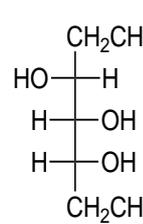
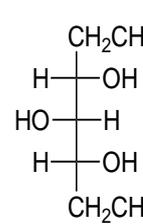
## Simulazione\_4 di CO1

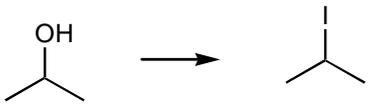
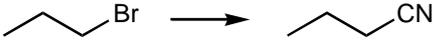
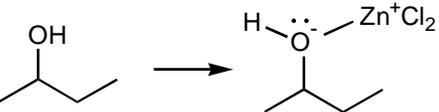
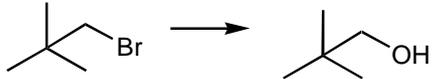
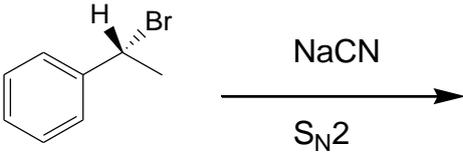
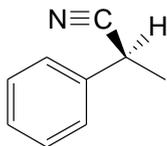
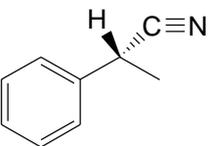
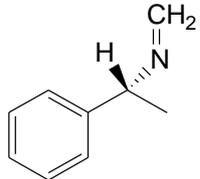
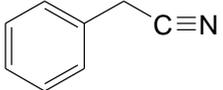
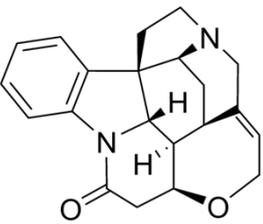
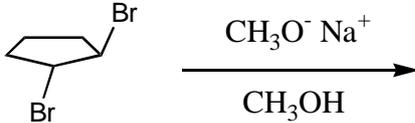
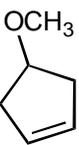
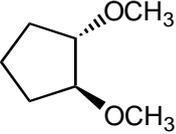
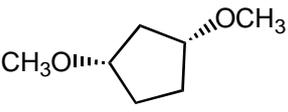
1	<p>Per quali composti le energie di attivazione per reazioni competitive S<sub>N</sub>1 e S<sub>N</sub>2 sono simili?</p> <p>A alogenuri alchilici primari                      B alogenuri alchilici secondari            C alogenuri alchilici terziari                      D tutti i precedenti</p>	
2	<p>L'acidità dei seguenti alcoli cresce nell'ordine:</p> <p style="text-align: center;"> <math>\text{CF}_3\text{-CH}_2\text{-OH}</math>                      <math>\text{CH}_3\text{-CH}_2\text{-OH}</math>                      <math>\text{Cl-CH}_2\text{-CH}_2\text{-OH}</math>            1    2    3         </p> <p>A 1 &lt; 2 &lt; 3    B 2 &lt; 3 &lt; 1            C 3 &lt; 1 &lt; 2    D 3 &lt; 2 &lt; 1</p>	
3	<p>Quale dei seguenti solventi può essere definito protico?</p> <p>A CH<sub>3</sub>-Cl    B N(CH<sub>3</sub>)<sub>3</sub>            C CH<sub>3</sub>-CH<sub>2</sub>-OH    D CH<sub>3</sub>-S-CH<sub>3</sub></p>	
4	<p>Considerando la dissociazione del protone evidenziato, qual è, per i seguenti composti, l'ordine corretto delle pK<sub>a</sub> ?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>1</p> </div> <div style="text-align: center;">  <p>2</p> </div> <div style="text-align: center;">  <p>3</p> </div> </div> <p>A. 1&gt;3&gt;2            B. 3&gt;2&gt;1            C. 3&gt;1&gt;2            D. 1&gt;2&gt;3</p>	
5	<p>Quale dei seguenti composti avrà la base coniugata più forte?</p> <p>A. etanolo            B. acido acetico            C. acido α-cloroacetico            D. acido 2,2-dicloroacetico</p>	
6	<p>Quale fra i seguenti alcoli ha il punto di ebollizione più basso?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>A</p> </div> <div style="text-align: center;">  <p>B</p> </div> <div style="text-align: center;">  <p>C</p> </div> <div style="text-align: center;">  <p>D</p> </div> </div>	
7	<p>Quale tipo di atomo di idrogeno presente nella seguente molecola è più acido?</p> <div style="text-align: center;">  <p>A                      B                      C                      D</p> </div>	

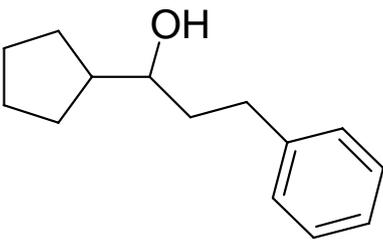
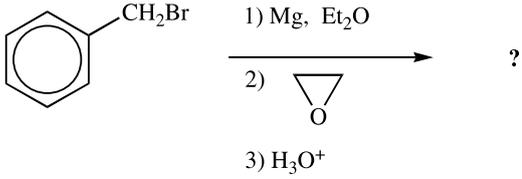
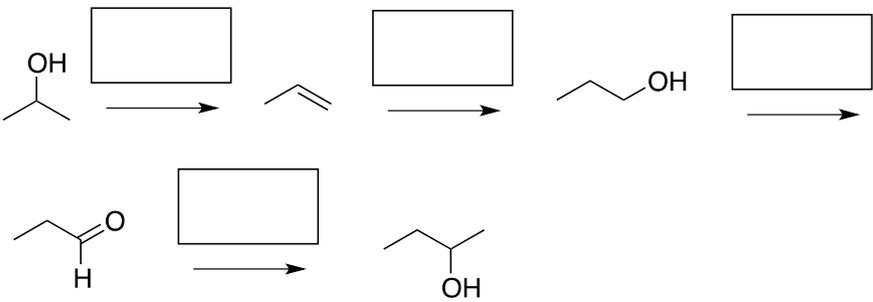
<p>8</p>	<p>Ordinare i seguenti ioduri alchilici sulla base della reattività nei confronti di uno ione etossido in una reazione <math>S_N2</math> (dal più reattivo al meno reattivo).</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <math display="block">\begin{array}{c} \text{H}_3\text{C} \\ \diagdown \\ \text{C}-\text{H}-\text{I} \\ \diagup \\ \text{H}_3\text{C} \end{array}</math> <p>I</p> </div> <div style="text-align: center;"> <math display="block">\text{CH}_3\text{I}</math> <p>II</p> </div> <div style="text-align: center;"> <math display="block">\text{CH}_3\text{CH}_2\text{I}</math> <p>III</p> </div> <div style="text-align: center;"> <math display="block">\begin{array}{c} \text{H}_3\text{C} \\ \diagdown \\ \text{C}-\text{I} \\ \diagup \\ \text{H}_3\text{C} \\   \\ \text{CH}_3 \end{array}</math> <p>IV</p> </div> </div> <p>A. I&gt;III&gt;II&gt;IV            B. II&gt;I&gt;III&gt;IV            C. II&gt;I&gt;IV&gt;III            D. II&gt;III&gt;I&gt;&gt;IV</p>	
<p>9</p>	<p>Quale è il nome IUPAC del seguente composto?</p> <div style="text-align: center;">  </div> <p>A. (R)-2-bromopentano            B. (S)-2-bromopentano            C. <i>meso</i>-2-bromopentano            D. (R)-1-bromo-1-metilbutano</p>	
<p>10</p>	<p>Nel confrontare il legame carbonio idrogeno nell'<b>etano</b>, <b>etene</b> e <b>etino</b>:</p> <p>A La forza di legame aumenta all'aumentare del carattere <i>p</i>.            B La lunghezza di legame aumenta al diminuire del carattere <i>p</i>.            C La lunghezza di legame aumenta al diminuire del carattere <i>s</i>.            D La forza del legame <math>\sigma</math> diminuisce all'aumentare del carattere <i>s</i>.</p>	
<p>11</p>	<p>Dare la configurazione assoluta per ognuna delle seguenti molecole</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>I</p> </div> <div style="text-align: center;">  <p>II</p> </div> </div> <p>A I. R ; II. R                      B I. R ; II. S            C I. S ; II. R                      D I. S ; II. S</p>	
<p>12</p>	<p>La stabilizzazione di un carbocatione può essere ottenuta per interazione di:</p> <p>A un orbitale <i>p</i> vuoto con un orbitale pieno di un legame sigma C-H.            B un orbitale <i>p</i> vuoto con un orbitale pieno di un legame sigma C-C.            C un orbitale <i>p</i> di un atomo adiacente con l'orbitale <math>sp^2</math> del carbocatione.            D entrambe A e B.</p>	
<p>13</p>	<p>Quale fra i seguenti composti formerà più facilmente un carbocatione per reazione con <math>\text{H}_2\text{SO}_4</math></p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>A</p>  </div> <div style="text-align: center;"> <p>B</p>  </div> <div style="text-align: center;"> <p>C</p>  </div> <div style="text-align: center;"> <p>D</p>  </div> </div>	

14	<p>Quale dei seguenti composti è aromatico?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>A</b></p> </div> <div style="text-align: center;">  <p><b>B</b></p> </div> <div style="text-align: center;">  <p><b>C</b></p> </div> <div style="text-align: center;">  <p><b>D</b></p> </div> </div>	
15	<p>Quale fra i seguenti orbitali molecolari <math>\pi</math> rappresenta meglio l'HOMO dell'1,3-butadiene?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>A</b></p> </div> <div style="text-align: center;">  <p><b>B</b></p> </div> <div style="text-align: center;">  <p><b>C</b></p> </div> <div style="text-align: center;">  <p><b>D</b></p> </div> </div>	
16	<p>Quale dei seguenti composti assorbirà a lunghezza d'onda più elevata la luce UV?</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>A</b></p> </div> <div style="text-align: center;">  <p><b>B</b></p> </div> <div style="text-align: center;">  <p><b>C</b></p> </div> <div style="text-align: center;">  <p><b>D</b></p> </div> </div>	
17	<p>Quale è il prodotto principale della seguente reazione?</p> <div style="text-align: center; margin-bottom: 10px;">  </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>A</b></p> </div> <div style="text-align: center;">  <p><b>B</b></p> </div> <div style="text-align: center;">  <p><b>C</b></p> </div> <div style="text-align: center;">  <p><b>D</b></p> </div> </div>	
18	<p>Quale fra i seguenti gruppi non è un esempio di nucleofilo:</p> <p>A <math>\text{Br}^-</math>          B <math>\text{CH}_3\text{Br}</math>          C <math>\text{NH}_3</math>          D <math>\text{F}^-</math></p>	

<p>19</p>	<p>Quale è il prodotto principale delle due reazioni riportate di seguito?</p>  <p>     </p> <p>A B C D</p>	
<p>20</p>	<p>Quale è il prodotto che si forma nella seguente reazione?</p>  <p>     </p> <p>A B C D</p>	
<p>21</p>	<p>Quale sequenza di reazioni può essere utilizzata per la sintesi seguente:</p>  <p> <b>A</b> 1. Mg/Et<sub>2</sub>O; 2. CH<sub>3</sub>COCH<sub>3</sub>; 3. H<sub>2</sub>O  <b>B</b> 1. KOH/etanolo; 2. CH<sub>3</sub>COCH<sub>3</sub>; 3. H<sub>2</sub>O  <b>C</b> 1. Mg/Et<sub>2</sub>O; 2. 2-propanolo; 3. H<sub>2</sub>O  <b>D</b> 1. Mg/etanolo; 2. CH<sub>3</sub>COCH<sub>3</sub>; 3. H<sub>2</sub>O         </p>	

<p>22</p>	<p>Quale è il prodotto maggioritario della seguente serie di reazioni.</p>  <p>A  B  C  D </p>	
<p>23</p>	<p>Quale dei seguenti acidi carbossilici è il più acido ?</p> <p>A <math>\text{CH}_3\text{CO}_2\text{H}</math></p> <p>B <math>\text{HCO}_2\text{H}</math></p> <p>C </p> <p>D <math>\text{CCl}_3\text{CO}_2\text{H}</math></p>	
<p>24</p>	<p>Quale è la relazione esistente fra le molecole sotto indicate?</p>  <p>A Identiche</p> <p>B Diastereoisomeri</p> <p>C Enantiomeri</p> <p>D Isomeri strutturali</p>	
<p>25</p>	<p>Le molecole rappresentate di seguito sono:</p>  <p>A. regioisomeri</p> <p>B. diastereoisomeri</p> <p>C. molecole identiche</p> <p>D. enantiomeri</p>	
<p>26</p>	<p>Quale fra i seguenti rappresenta un composto otticamente inattivo?</p> <p>A </p> <p>B </p> <p>C </p> <p>D </p>	

<p>27</p>	<p>Quale fra le seguenti reazioni non è un esempio di reazione di sostituzione:</p> <p>A </p> <p>B </p> <p>C </p> <p>D </p>	
<p>28</p>	<p>Qual è il prodotto maggioritario atteso per la reazione sotto riportata?</p> <p></p> <p>A </p> <p>B </p> <p>C </p> <p>D </p>	
<p>29</p>	<p>Quanti stereocentri possiede la stricnina?</p> <p></p> <p>A 9                      B 6 C 4                      D 7</p>	
<p>30</p>	<p>Quale fra i seguenti è un prodotto atteso nella reazione sotto riportata?</p> <p></p> <p>A </p> <p>B </p> <p>C </p> <p>D </p>	
<p>31</p>		

<p>32</p>	<p>Proporre una sintesi per il seguente composto</p> 	
<p>33</p>		
<p>34</p>	<p>Completare il seguente schema sintetico aggiungendo nei riquadri i reattivi mancanti</p> 	
<p>35</p>	<p>Disegnare i reagenti (attenzione alla stereochimica)</p> 