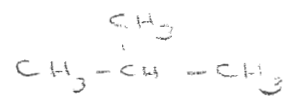
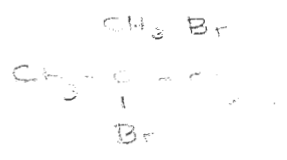


Starting Compound

H<sub>2</sub>, Pt

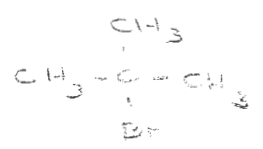


Br<sub>2</sub>/CCl<sub>4</sub>



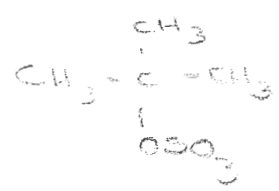
"Anti"

HBr



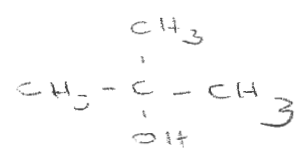
"Mark"  
(Carbocation)

H<sub>2</sub>SO<sub>4</sub>



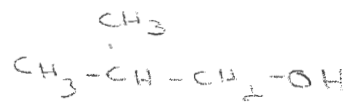
"Mark"  
(Carbocation)

H<sub>2</sub>O, Hg(OAc)<sub>2</sub>; then NaBH<sub>4</sub>



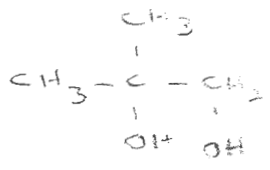
"Mark"

(BH<sub>3</sub>)<sub>2</sub>; then H<sub>2</sub>O<sub>2</sub>, OH<sup>-</sup>



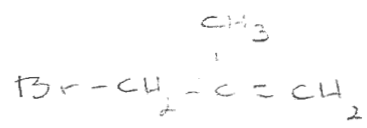
"Anti-Mark"

KMnO<sub>4</sub>

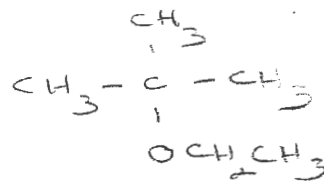
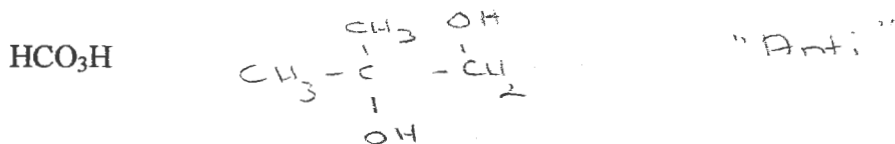
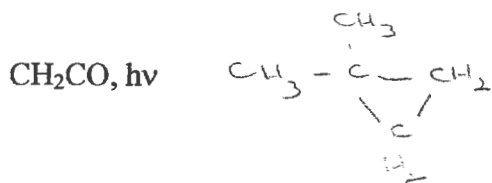
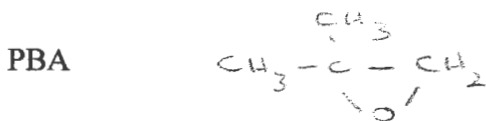
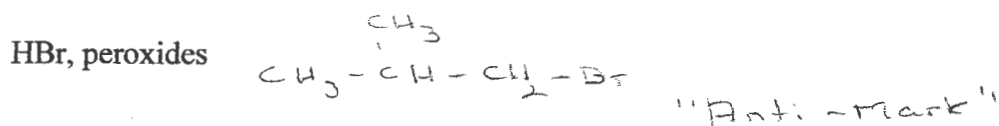
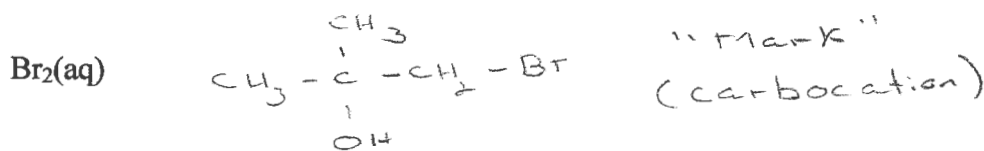
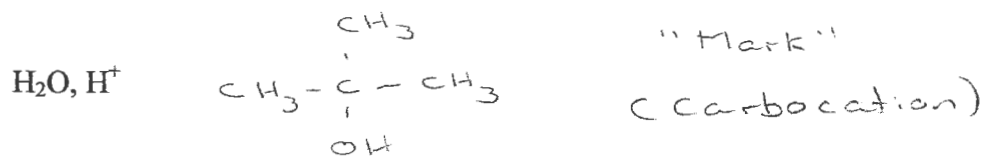
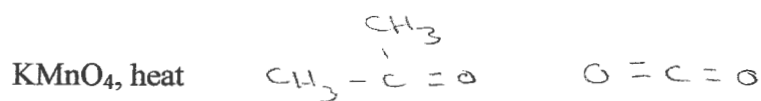
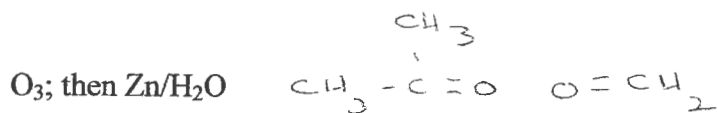


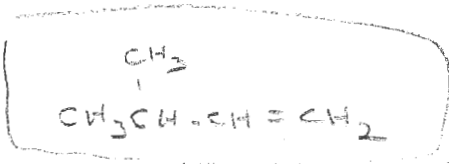
"Syn"

Br<sub>2</sub>/Heat

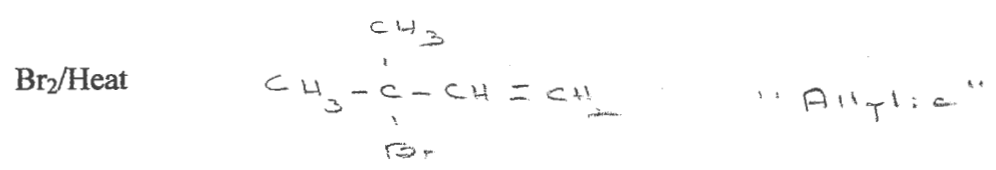
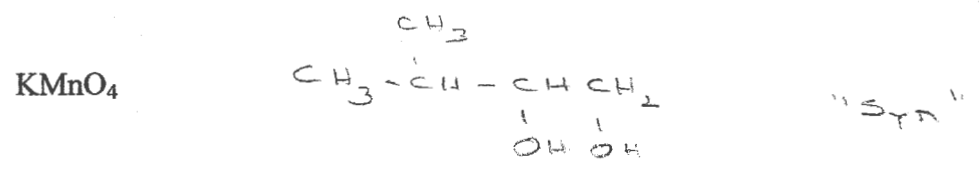
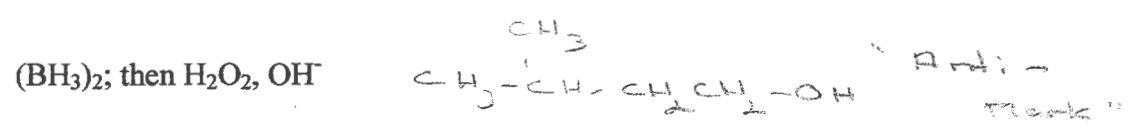
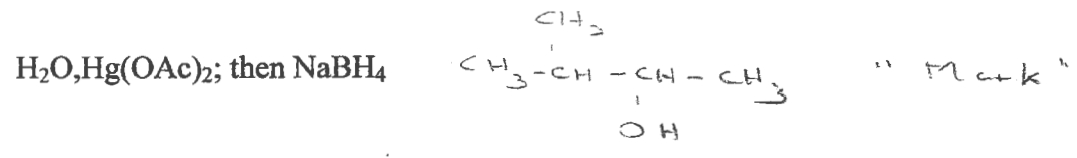
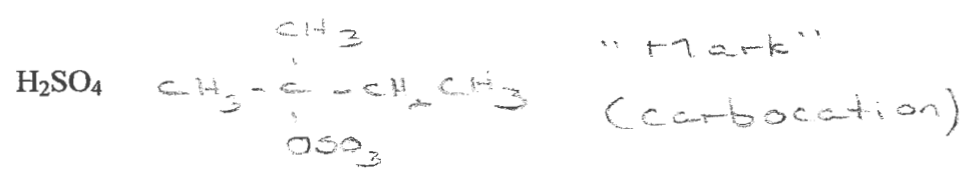
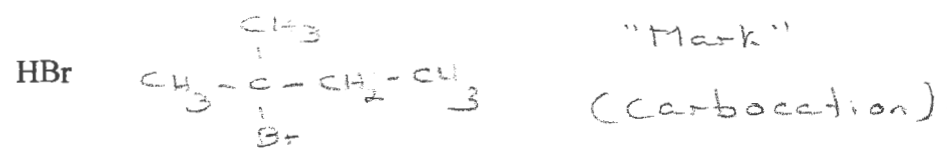
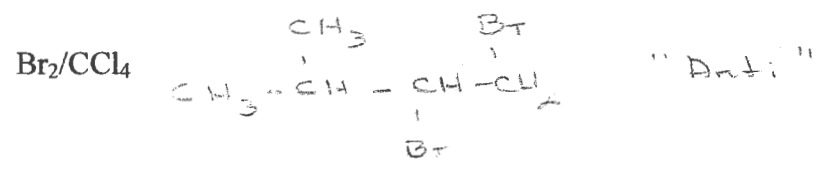
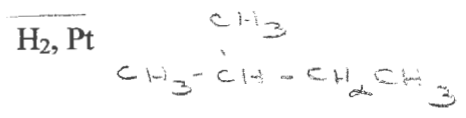


"Allylic"

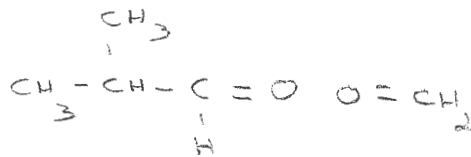




Starting Material



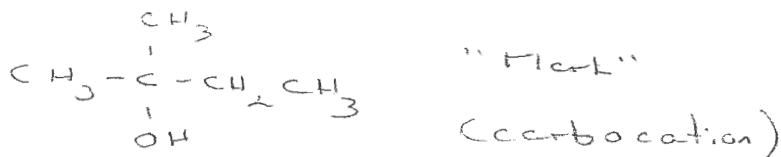
O<sub>3</sub>; then Zn/H<sub>2</sub>O



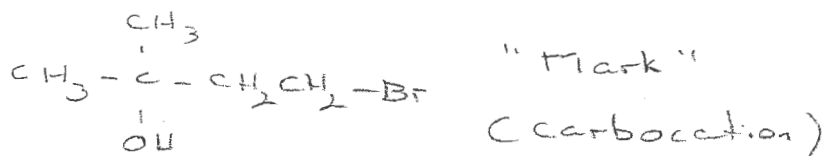
KMnO<sub>4</sub>, heat



H<sub>2</sub>O, H<sup>+</sup>



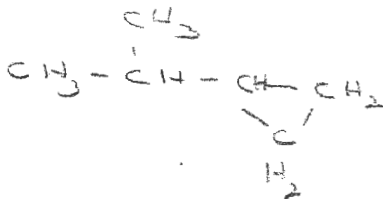
Br<sub>2</sub>(aq)



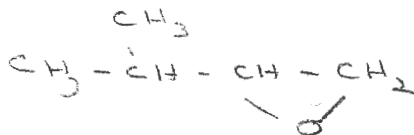
HBr, peroxides



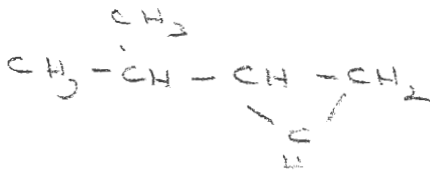
CH<sub>2</sub>N<sub>2</sub>, hv



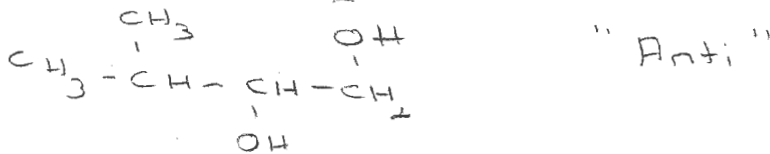
PBA



CH<sub>2</sub>CO, hv



HCO<sub>3</sub>H



CH<sub>3</sub>CH<sub>2</sub>OH, H<sub>3</sub>(COAc)<sub>2</sub>, NaBH<sub>4</sub>

