

- 1) What is meant by a radical?

- 2) Which of the following radicals is most stable and which is least?
 $\text{CH}_3\text{CH}_2\text{C}\cdot\text{H}_2$, $(\text{CH}_3)_3\text{C}\cdot$, $\text{CH}_3\text{C}\cdot\text{HCH}_3$

- 3) Consider the free radical bromination of 2-methylbutane using sufficient bromine. After the reaction is over, you isolate the monobromoisomers. Answer the following questions as related to this reaction:
 - a) how many monobromoisomers will you obtain (write them all out). Which isomer will be the major product and why?

 - b) how would you separate all the isomers

 - c) how would you propose to start the reaction

 - d) write the propagations steps showing the synthesis of the major product.