

Chemistry 351

Quiz #5

October 2, 2019

Name: _____

Student Number: _____

Section Number: _____

TA: _____

INSTRUCTIONS:

This quiz consists of 10 questions on 3 pages. Please make certain that your quiz is complete.

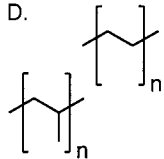
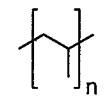

Write your name, student number, and section number **on both the quiz and answer sheet. Be certain to bubble in your PID digits on the answer sheet. The absence of any of these identification items will result in the deduction of 2 points from your score.**

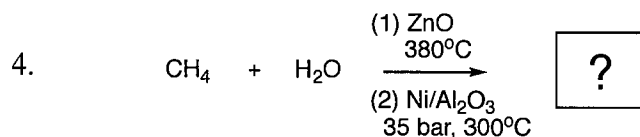
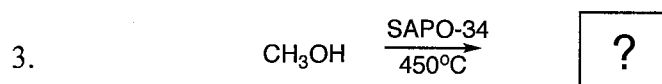
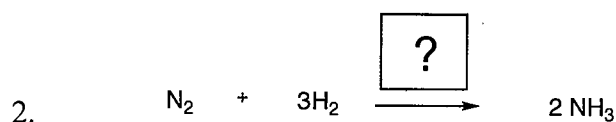
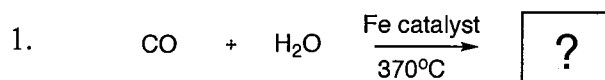
Questions 1-10 are each worth 1 point.

Write your answer to Questions 1-9 on the enclosed answer sheet. **Write your answers to Question 10 in the space provided on this quiz.**

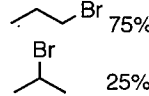
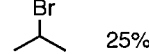
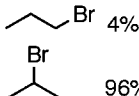
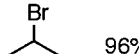
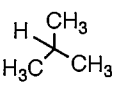
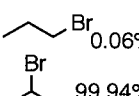
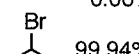
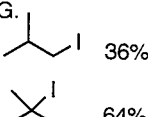
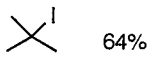
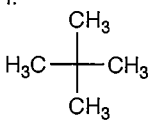
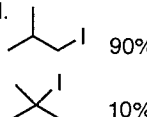
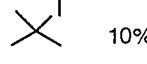
When you complete the quiz, insert your answer sheet into your quiz and then hand both in on the bench in front of the lecture hall in the spot indicated by your section number.

Questions 1-4 are to be answered from the following possibilities:

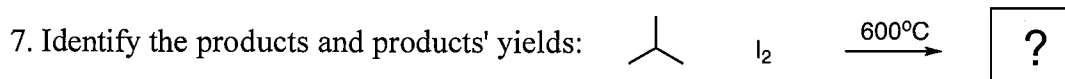
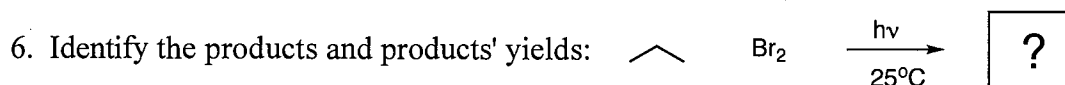
A. $\text{CO} + 3\text{H}_2$	B. Fe_3O_4 200 bar, 450°C	C. $\text{CO}_2 + 4\text{H}_2$	D. 	E. 
F. CH_3OH	G. 	H. $\text{CO} + \text{H}_2$	I. $\xrightarrow[\text{35 bar, 300}^\circ\text{C}]{\text{Ni/Zn/Al}_2\text{O}_3}$	J. $\text{CO}_2 + \text{H}_2$



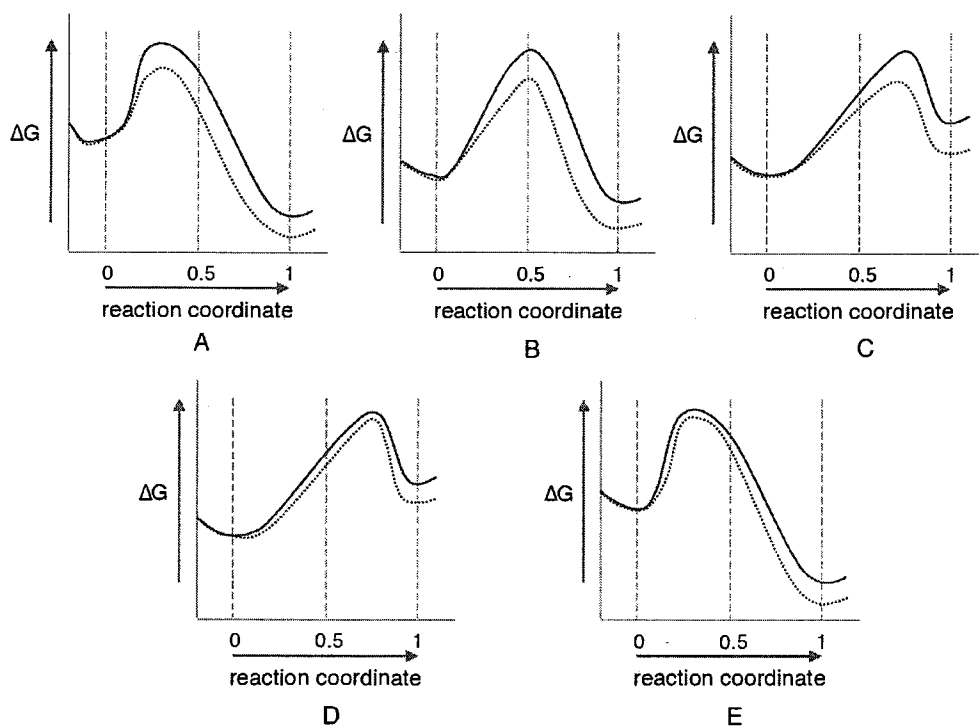
Questions 5-7 are to be answered from the following possibilities:

A.  75%  25%	B. $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_3$	C.  4%  96%	D. 	E.  0.06%  99.94%
F. $\text{H}_3\text{C}-\text{CH}_3$	G.  36%  64%	H. 	I.  90%  10%	J. No Reaction

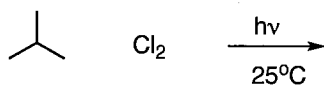
5. Identify the hydrocarbon that leads to a carbon-localized radical only under forcing conditions due to the absence of stabilization of the radical by hyperconjugation with C-H sigma bonds.



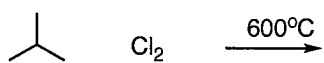
Questions 8 and 9 are to be answered from the following potential energy diagram possibilities:



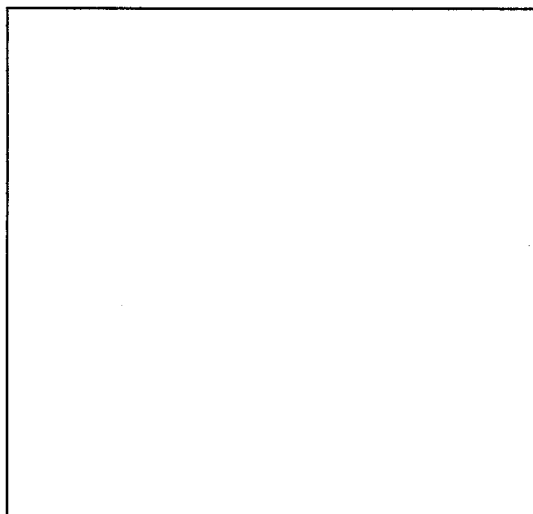
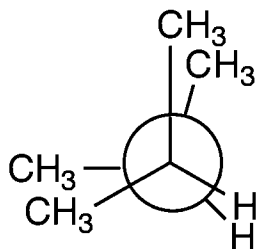
8. Identify the potential energy diagram that describes the following reaction:



9. Identify the potential energy diagram that describes the following reaction:



10. (1 pt) In the labeled box below, draw the dash-wedge structure that corresponds to the provided Newman Projection.



Dash-Wedge Structure