

# Chemistry 2541, Fall 2014

## Quiz 5

Key

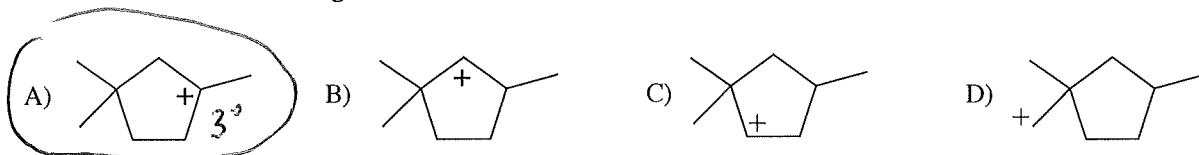
(30 points)

### Important notes:

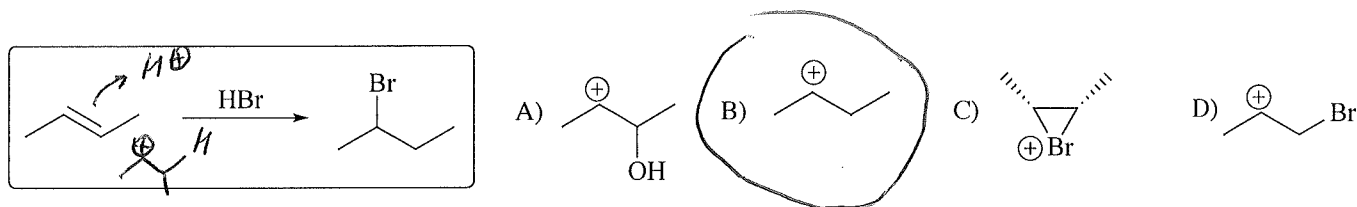
- Please use the provided Scantron form for your answers; you can keep the sheet with the questions and can use it as scratch paper
- Do not forget to write your name on the Scantron form
- You will not receive credit for unmarked answers or for more than one mark on answer line
- Your scores will be posted on eGradebook; graded Scantron forms will not be returned to students.

Questions 1-10: Please mark the appropriate box on the front of the Scantron form (3 pts each).

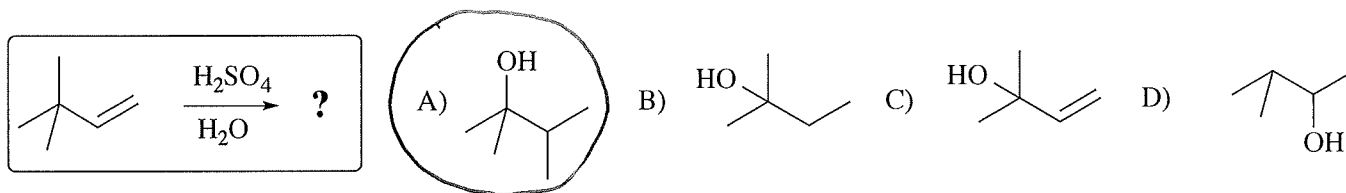
1. Which of the following is the **most stable carbocation**?



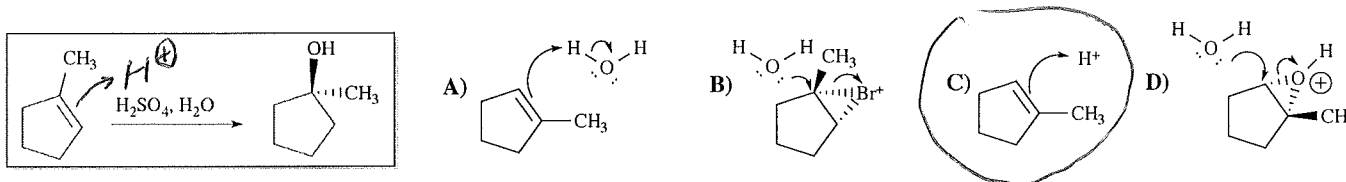
2. What is the structure of the reaction **intermediate** for the reaction in the box?



3. What is the product of **1,2-shift of the methyl group** for the reaction in the box?

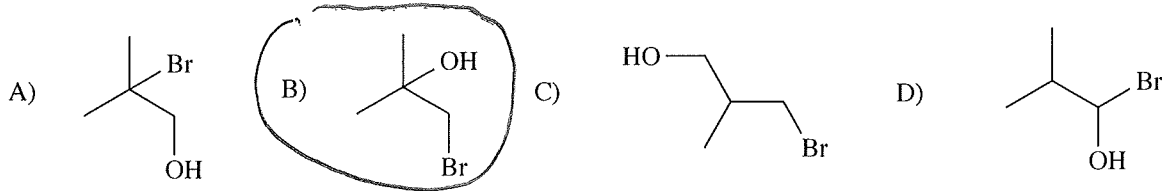


4. Which one of the following four schemes (A-D) represents a **step** in the **mechanism** of the reaction in the box?

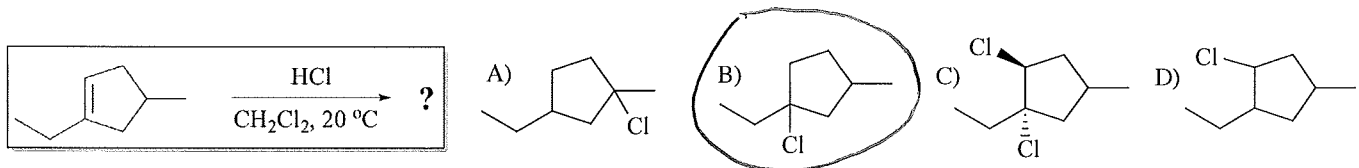




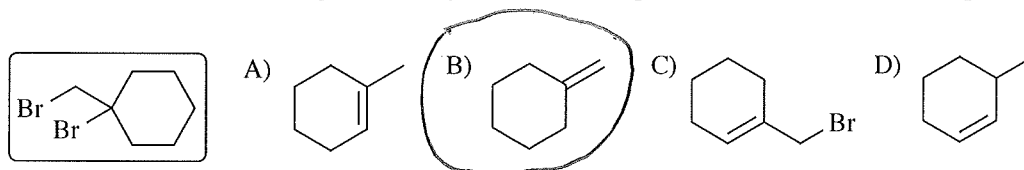
5. Which of the following is the major product of the reaction of **2-methylpropene** with  $\text{Br}_2/\text{H}_2\text{O}$ ?



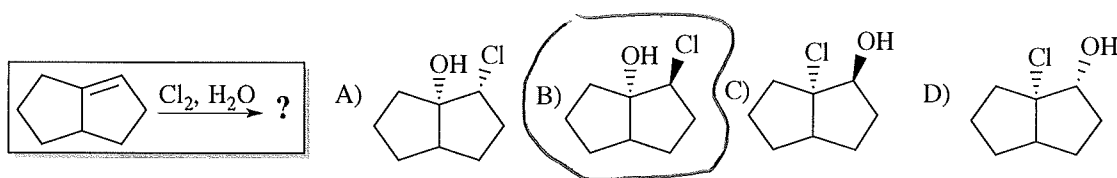
6. What is the **main product** of the reaction shown in the box?



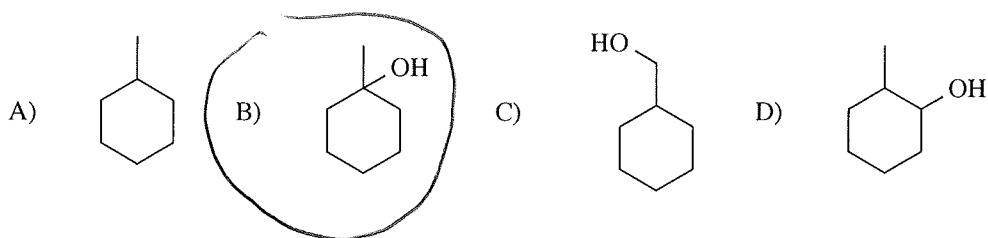
7. Which of the following **alkenes** yields the compound shown in the box upon treatment with bromine?



8. What is the **main product** of the reaction shown in the box?



9. Which of the following depicts the major product of the acid catalyzed **hydration** of 1-methylcyclohexene?



10. Which of the following is an important **intermediate** of the reaction shown in the box?

