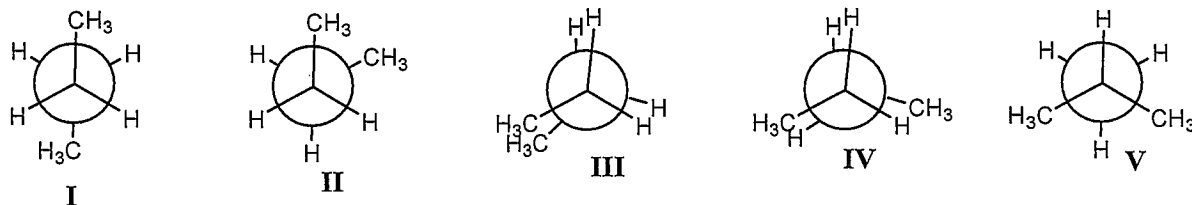


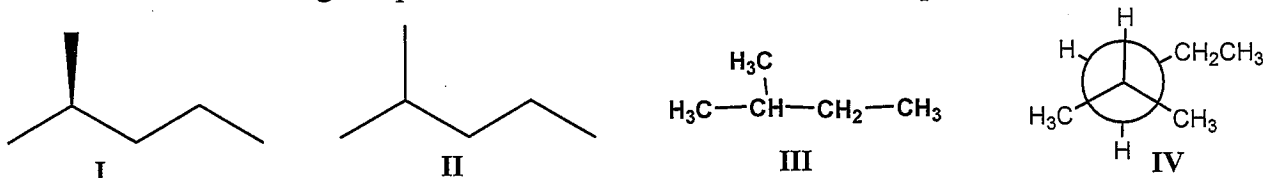
I. Multiple choice questions. Please put your answers on Scantron sheet. Your score will be graded based only on your answers from Scantron sheet. (10 questions, 20 points)

1. What is the order of stability for the following conformational isomers of *n*-butane (most to least)?



- (a) I>II>III>IV
- (b) I>V>II>III
- (c) I>V>III>IV
- (d) I>II>IV>III
- (e) None of the above

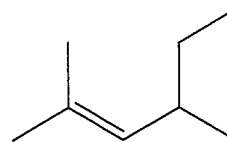
2. Which of the following compound is not the structural isomer as compared to others?



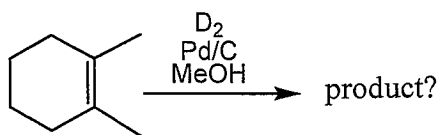
- (a) I
- (b) II
- (c) III
- (d) VI
- (e) None of the above

3. What is the name for the following compound?

- (a) (*E*)-4-ethyl-2-methyl-2-pentene
- (b) (*Z*)-4-ethyl-2-methyl-2-pentene
- (c) 2,4-dimethyl-2-hexene
- (d) (*Z*)-2,4-dimethyl-2-hexene
- (e) None of the above

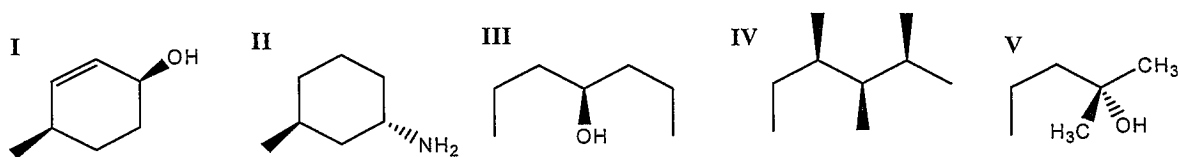


4. What will be the major product in its most stable conformation from the following reaction?



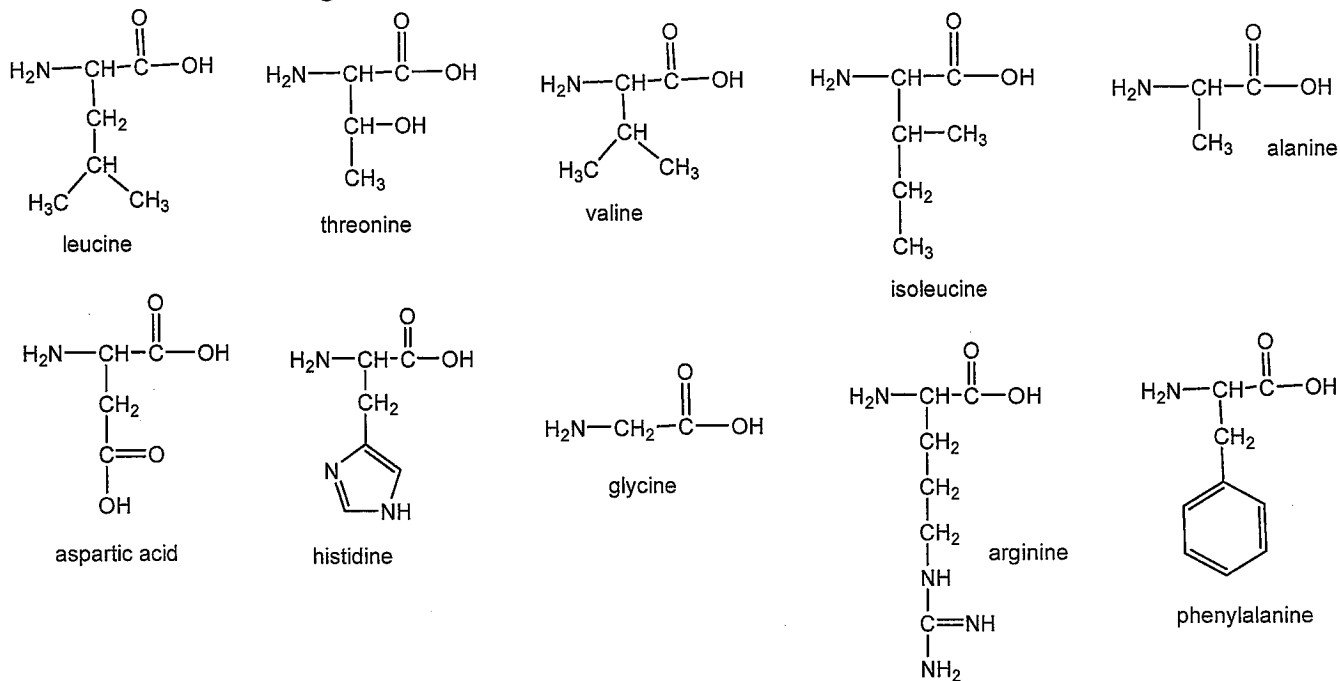
- (a)
- (b)
- (c)
- (d)
- (e) None of the above

5. Which of the following are chiral molecules?



- (a) II
 (b) I, II, IV
 (c) II, V
 (d) II, IV, V
 (e) None of the above

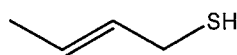
6. Which of the following amino acids is achiral?



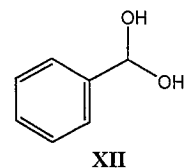
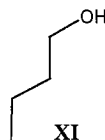
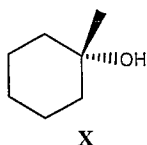
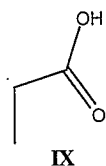
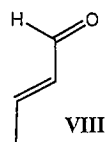
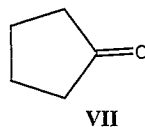
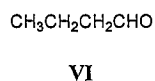
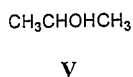
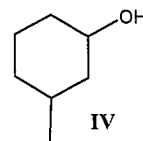
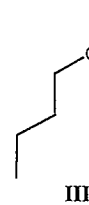
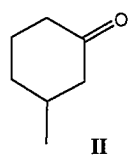
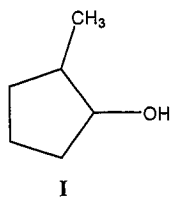
- (a) phenylalanine
 (b) glycine
 (c) histidine
 (d) valine
 (e) None of the above

7. What's the name for the following compound?

- (a) (*E*)-2-butene-1-thiol
 (b) (*E*)-3-butene-1-thiol
 (c) (*Z*)-2-butene-1-thiol
 (d) (*Z*)-3-butene-1-thiol
 (e) None of the above

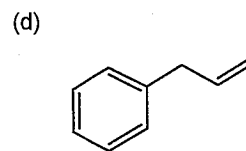
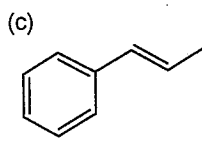
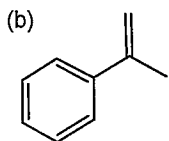
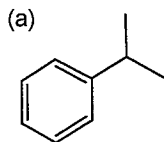
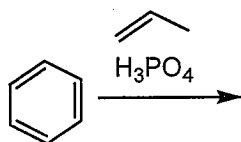


8. Which of the following compounds belong to 2° alcohol?



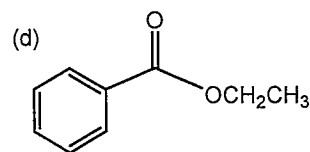
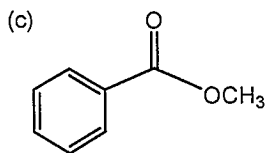
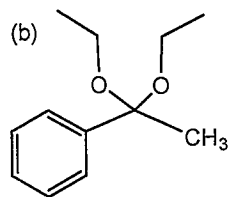
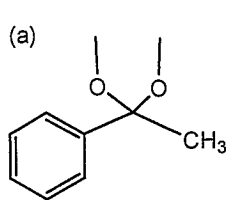
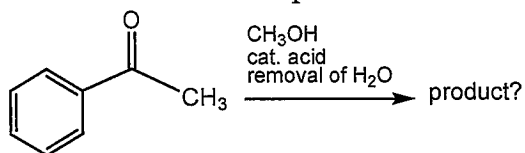
- (a) I, IV, V
 (b) I, IV, XI, XII
 (c) I, IV, VI, XI
 (d) I, IV, V, XII
 (e) None of the above

9. What could be the structure of compound I for the following reaction?



(e) None of the above

10. What could be the product for the following reaction?



(e) none of the above