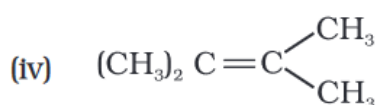
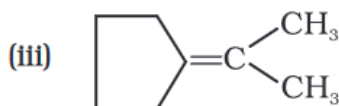
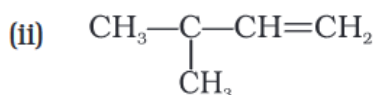
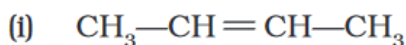


NCERT EXEMPLAR PROBLEMS

Q1:

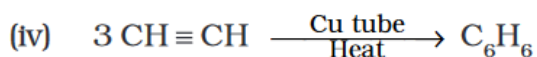
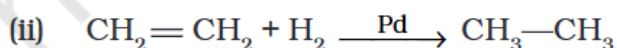
Which of the following alkenes on ozonolysis give a mixture of ketones only?



Q2:

Match the reactions given in Column I with the reaction types in Column II.

Column I



Column II

(a) Hydrogenation

(b) Halogenation

(c) Polymerisation

(d) Hydration

(e) Condensation

Q3:

Why do alkenes prefer to undergo electrophilic addition reaction while arenes prefer electrophilic substitution reactions? Explain.

SOLUTION:

(1). (iii), (iv)

(2). (i) → (d) (ii) → (a) (iii) → (b) (iv) → (c)

(3). Both alkenes and arenes are electron-rich. Therefore undergo electrophilic reactions. Olefins undergo addition reactions because addition of a reagent to an olefin gives a more stable product as sp^2 hybridisation changes to sp^3 hybridisation. Addition to the double bond of an arene would give a product with less or no resonance stability hence addition is difficult

arenes. On the other hand in substitution reaction resonance stabilisation is retained therefore, arenes undergo substitution reaction