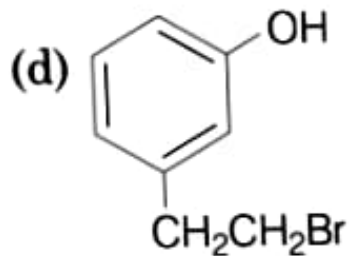
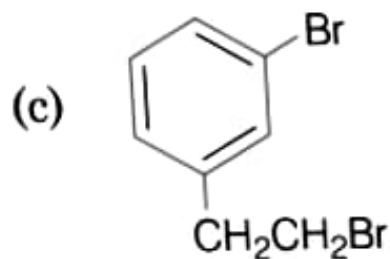
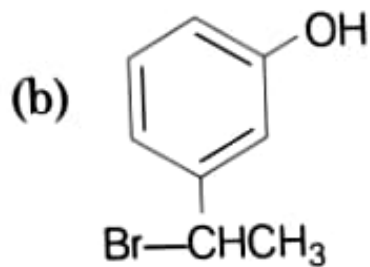
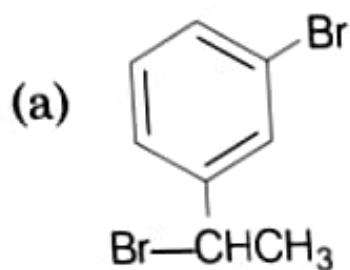
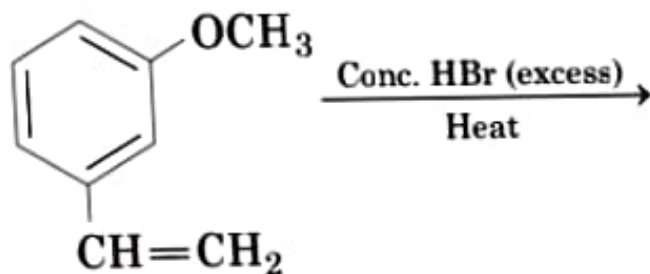
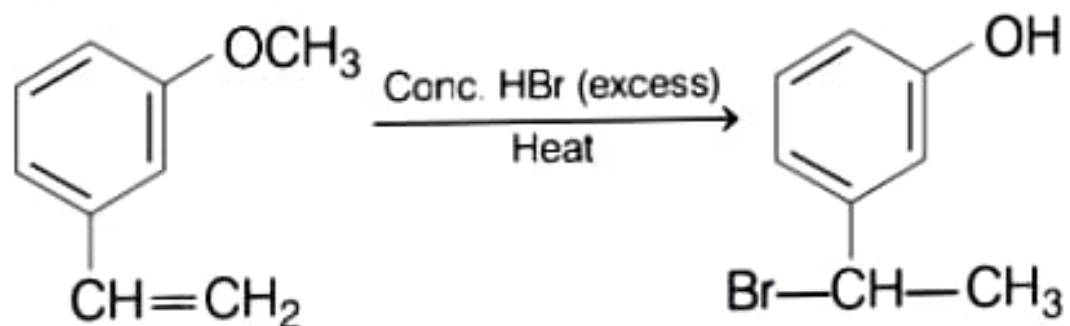


The major product of the following reaction is
(2019 Main, 8 April I)



Key Idea Ethers are least reactive functional groups. The cleavage of C — O bond in ethers take place under drastic conditions with excess of HX.

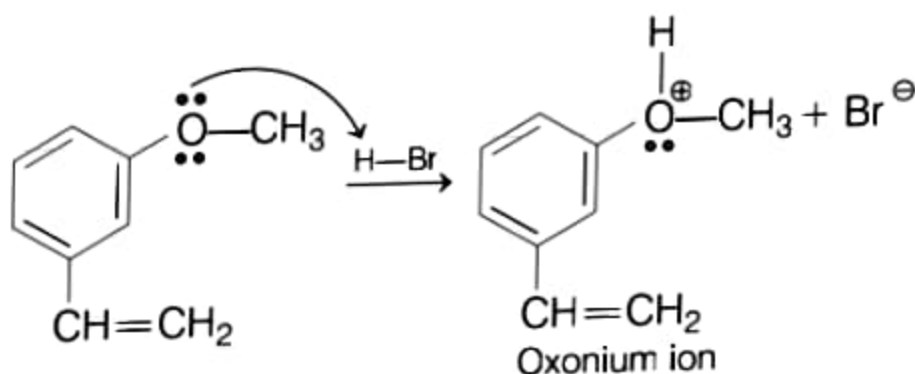
The major product obtained in the reaction is as follows :



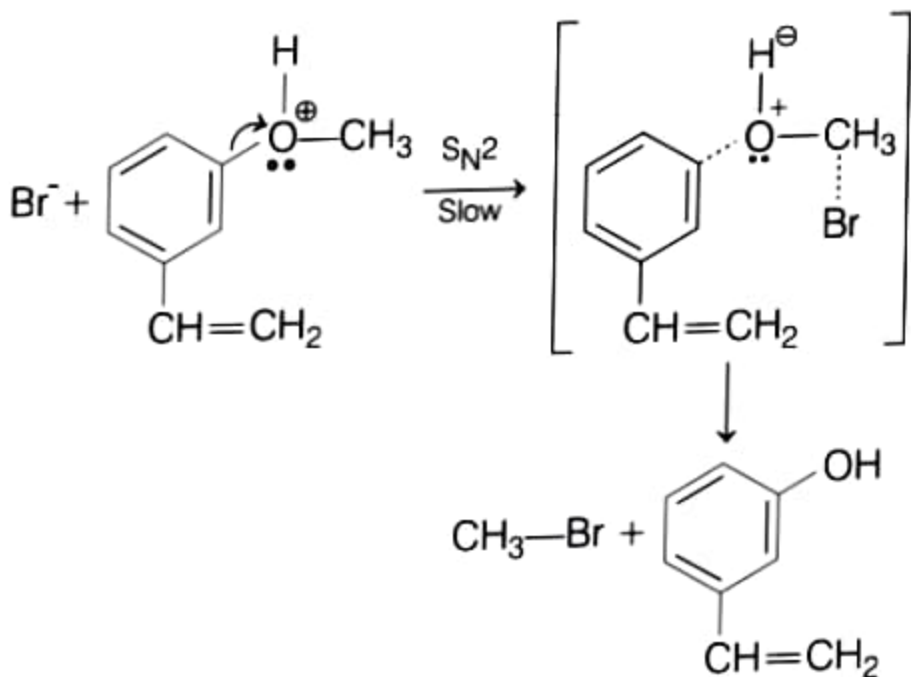
As conc. HBr is in excess. So, reaction will take place at both the substituents.

Mechanism

Step 1 Protonation of ether to form oxonium ion.



Step 2 Attack of nucleophile at the protonated ether.



Step 3 As HBr is in excess, so, reaction will also take place at alkene.

