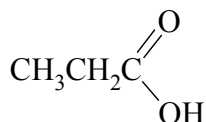


Chemguide – answers

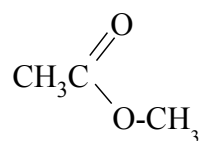
ACYL CHLORIDES: REACTIONS WITH WATER, ALCOHOLS AND PHENOLS

1. a) You would get a very vigorous reaction (less so in the case of phenol) producing steamy fumes.

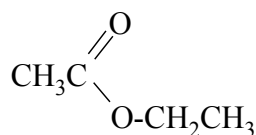
b) (i)



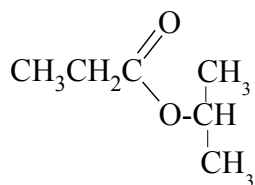
(ii)



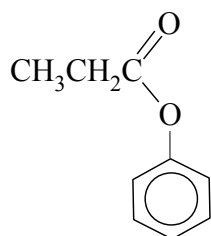
(iii)



(iv)

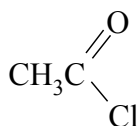
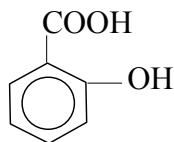


(v)



(In the final case, it doesn't matter where you have drawn the benzene ring relative to the oxygen. It would make just as much sense to move the benzene ring and its attaching bond so that it was sticking out at the right-hand side rather than hanging down. You will find the other version on the Chemguide page.)

2. a)



b) Acylation means substituting an acyl group, $\text{RC}=\text{O}$, into another molecule. R is a hydrocarbon group. Ethanoylation is a particular example of acylation where a $\text{CH}_3\text{C}=\text{O}$ group (an ethanoyl group) is substituted into another molecule.