

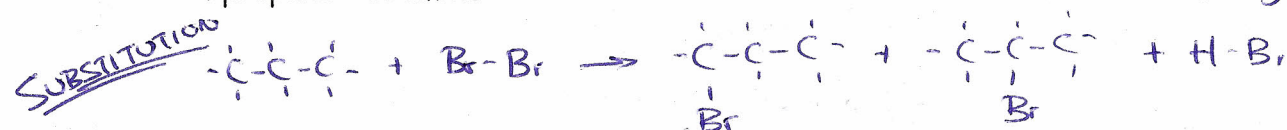
ANSWER KEY

Chemistry 122

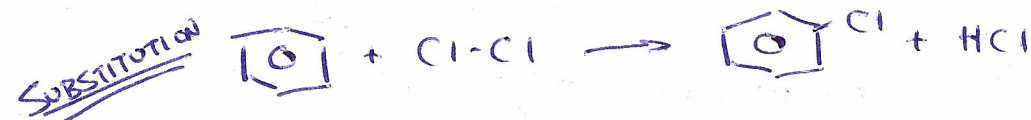
Organic Chemistry Reactions Review

For each of the following, write a complete structural and word equation. Identify the type of reaction.

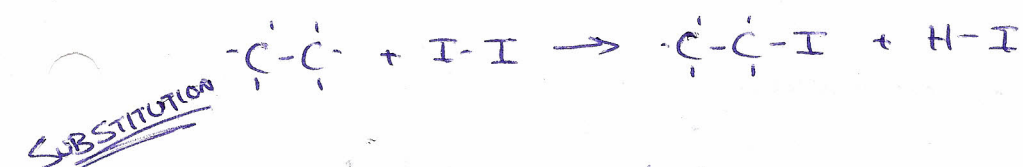
1. propane + bromine \rightarrow 1-bromopropane + 2-bromopropane + hydrogen bromide



2. benzene + chlorine \rightarrow chlorobenzene + hydrogen chloride



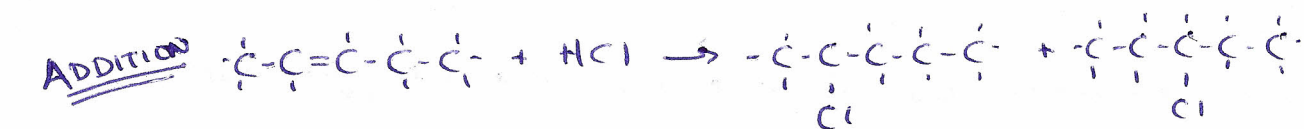
3. ethane + iodine \rightarrow iodobethane + hydrogen iodide



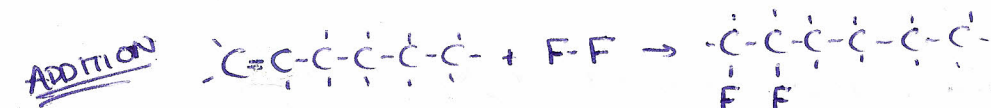
4. 2-butene + hydrogen \rightarrow butane



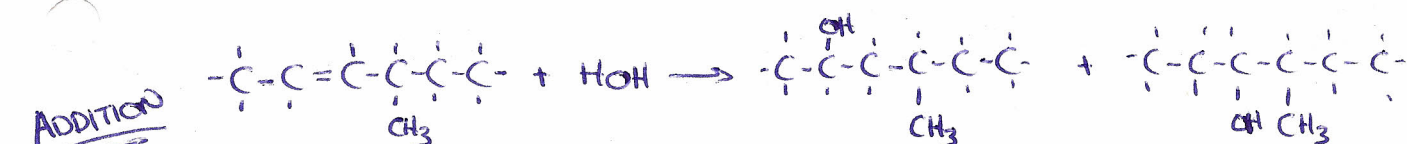
5. 2-pentene + hydrogen chloride \rightarrow 2-chloropentane + 3-chloropentane



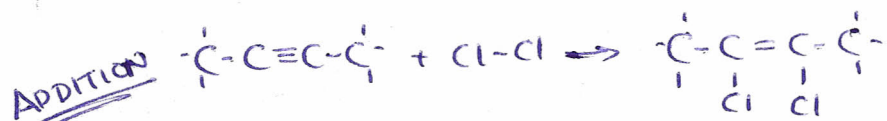
6. 1-hexene + fluorine \rightarrow 1,2-difluorohexane



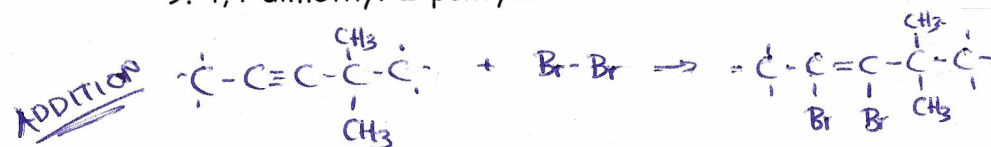
7. 4-methyl-2-hexene + water (HOH) \rightarrow 4-methyl-2-hexanol + 4-methyl-3-hexanol



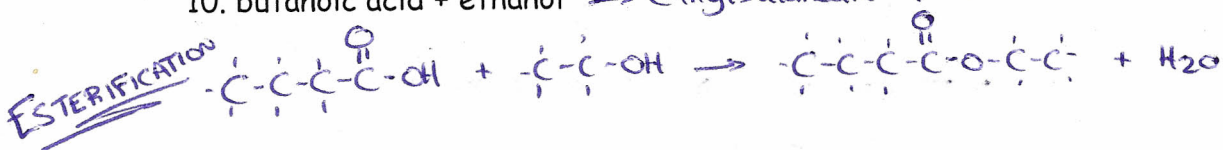
8. 2-butyne + chlorine \rightarrow 2,3-dichloro-2-butene



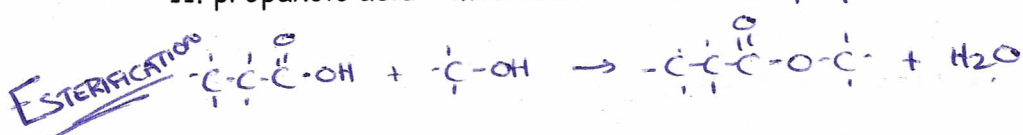
9. 4,4-dimethyl-2-pentyne + bromine \rightarrow 2,3-dibromo-4,4-dimethyl-2-pentene



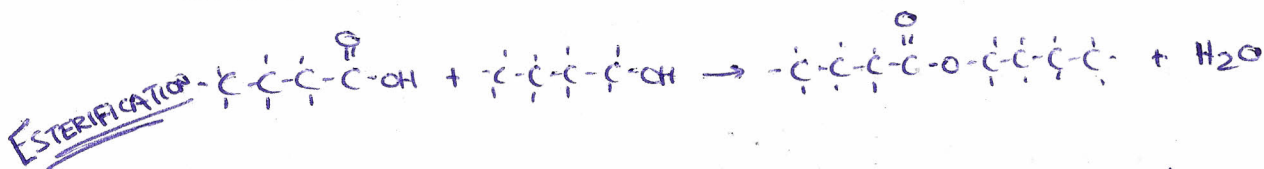
10. butanoic acid + ethanol \rightarrow ethyl butanoate + water



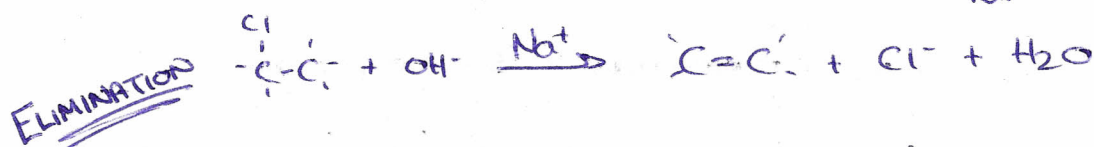
11. propanoic acid + methanol \rightarrow methyl propanoate + water



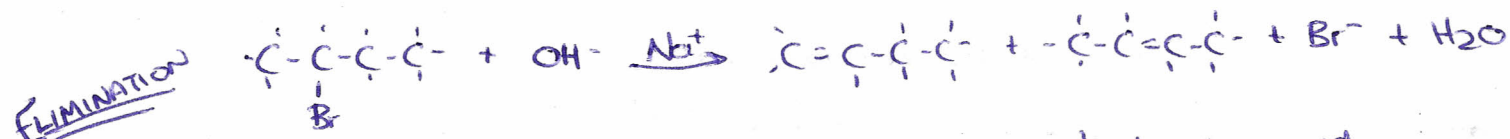
12. butanoic acid + 1-butanol \rightarrow butyl butanoate + water



13. chloroethane + hydroxide ions \rightarrow ethene + chloride + water



14. 2-bromobutane + hydroxide ions \rightarrow 1-butene + 2-butene + bromide + water



15. 2-butanol + HCl \rightarrow 1-butene + 2-butene + water + hydrochloric acid

