Answers to Practice Problems 39, 40 in page 294
39. a. $2 \mathrm{C}_{3} \mathrm{H}_{6}+9 \mathrm{O}_{2} \rightarrow 6 \mathrm{CO}_{2}+$ $6 \mathrm{H}_{2} \mathrm{O}$
b. $\mathrm{C}_{5} \mathrm{H}_{12}+8 \mathrm{O}_{2} \rightarrow 5 \mathrm{CO}_{2}+$ $6 \mathrm{H}_{2} \mathrm{O}$
c. $2 \mathrm{CH}_{3} \mathrm{OH}+3 \mathrm{O}_{2} \rightarrow 2 \mathrm{CO}_{2}+$ $4 \mathrm{H}_{2} \mathrm{O}$
d. $\mathrm{C}_{12} \mathrm{H}_{22} \mathrm{O}_{11}+12 \mathrm{O}_{2} \rightarrow$ $12 \mathrm{CO}_{2}+11 \mathrm{H}_{2} \mathrm{O}$
40. a. combustion; $\mathrm{C}_{3} \mathrm{H}_{8}+5 \mathrm{O}_{2} \rightarrow$ $3 \mathrm{CO}_{2}+4 \mathrm{H}_{2} \mathrm{O}$
b. decomposition; $\mathrm{CuCl}_{2} \rightarrow$ $\mathrm{Cu}+\mathrm{Cl}_{2}$
c. synthesis; $2 \mathrm{Mg}+\mathrm{O}_{2} \rightarrow$ 2 MgO
d. decomposition; $\mathrm{Na}_{2} \mathrm{CO}_{3} \longrightarrow$ $\mathrm{Na}_{2} \mathrm{O}+\mathrm{CO}_{2}$
e. decomposition; $\mathrm{Ba}(\mathrm{OH})_{2} \longrightarrow$ $\mathrm{BaO}+\mathrm{H}_{2} \mathrm{O}$
f. combustion; $\mathrm{C}_{2} \mathrm{H}_{5} \mathrm{OH}+$ $3 \mathrm{O}_{2} \rightarrow 2 \mathrm{CO}_{2}+3 \mathrm{H}_{2} \mathrm{O}$

