



$S_0 \rightarrow S_1$ [a] b c c b a b c b a c b a
 $S_1 \rightarrow S_2$ [a] b c c b a b c b a c b a
 $S_2 \rightarrow S_3$ [a] b c c b a b c b a c b a
 $S_3 \rightarrow S_1$ [a] b c c b a b c b a c b a
 $S_1 \rightarrow S_2$ [a] b c c b a b c b a c b a
 $S_2 \rightarrow S_4$ [a] b c c b a b c b a c b a match[6]
 $S_4 \rightarrow S_1$ [a] b c c b a b c b a c b a
 $S_1 \rightarrow S_1$ [a] b c c b a b c b a c b a
 $S_1 \rightarrow S_2$ [a] b c c b a b c b a c b a
 $S_2 \rightarrow S_4$ [a] b c c b a b c b a c b a match[6, 10]
 $S_4 \rightarrow S_1$ [a] b c c b a b c b a c b a * if any here
 $S_1 \rightarrow S_2$ [a] b c c b a b c b a c b a
 $S_2 \rightarrow S_4$ [a] b c c b a b c b a c b a match[6, 10, 13]