Partial solution to the review problem of Dec. 5, 2018

Present state y_2y_1	Next state $w=0$ Y_2Y_1	Next state $w=1$ Y_2Y_1	Output z
0 0	1 0	1 1	0
0 1	0 1	0 0	0
1 0	1 1	0 0	0
1 1	1 0	0 1	1

Present state y_2y_1	Flip-flop inputs $w=0$ J_2K_2	$w=0$ J_1K_1	$w=1$ J_2K_2	$w=1$ J_1K_1	Output z
00	$1d$	$0d$		$1d$	0
01		$d0$	$0d$		0
10	$d0$			$0d$	0
11		$d1$	$d1$	$d0$	1

$$
\begin{aligned}
J_2 &= \overline{y}_1 \\
K_2 &= w \\
J_1 &= \overline{w}y_2 + w\overline{y}_2 \\
K_1 &= J_1
\end{aligned}
$$

$$z = y_1 y_2$$