Assignment – 3 [Marks-7] 16/4/24

1. Considering the MOORE model non-overlapping 1101 using JK Flip Flop
   1.Draw the state diagram.
   2. Make the state table based on the state diagram.
   3. Design the next state decoder and the output decoder using the state table as the truth table.
   4. Simplify the functions by K-map, and implement the next state and output decoders at logic gate level [3 Marks]
2. Draw the state diagram of a sequence detector considering the MOORE model overlapping 1001 [[1 Marks]]
3. Draw the state diagram of a sequence detector considering the Melay model non-overlapping 1101[1 Marks]
4. Draw the state diagram of a sequence detector considering the Melay model overlapping 1001[6 Marks]
5. Implement the following Boolean function using PLA and PLA [1 Marks]

   $F_1(A,\ B,\ C) = (0,1,2,4,5,7)$ using PLA

   $F_2(A,\ B, C) = (0,1,3,5,7)$. using PAL