## **DIGISIM - PS1**

## **SEQUENTIAL CIRCUIT:-**

Have created a state machine, a function box and a key box. Key box is responsible for creating key for each round. The function block is a combinational block. And the state machine is responsible for the entire circuit to work in a proper sequence such that all the universal shift registers work in synchronization to give the specified output.

There is a encryption activation logic probe which gives the encrypted message when high and nothing when low. It activates encryption only on a positive edge of a signal, otherwise nothing happens to the output even if we change inputs.

## **COBINATIONAL CIRCUIT:-**

its just a normal combinational circuit with a XOR box which simply give XOR output of input bits. The function block is same as that of sequential circuit.