170050068 170050074 170050083 170050093 170050102

#### THE DESIGNERS(U)- GL- 6

#### Inputs:

Item\_in : std\_logic\_vector(2 downto 0);
Money\_in : std\_logic\_vector(3 downto 0);

Clk : std\_logic;

### **Outputs**:

Money\_out : std\_logic;

A logic high represent the outflow of 5 rs coin.( A refund of 5 rs coin per one clock cycle.)

Item\_out : std\_logic\_vector(2 downto 0);

# **Encodings:**

Item encoding	Money encoding	State   Encoding
"000" : default	"0000" : default	idle   000 IDLE
"001" : Misal	"0001": 2000	wait_for_m   001 Wait for money
"010" : Samosa	"0010" : 500	cant_s   010 Cant Serve
"011" : Poha	"0011": 100	coin_d   011 Coin_dispense
"100" : Upma	"0100" : 50	item_d   100 item_dispense
"101" : Extra chatni	"0101" : 20	
"110" : Lassi	"0110": 10 rs note	
"111" : Chai	"011" : 10 rs coin	
	"0111": 5 rs coin	

## State Diagram:



