%Ravi Kumar

%Enroll-07110402811

%Aim - To design convolution encoder

clc

clear all;

close all;

M = [1 0 1 0] %message bits

l1 = length(M); %length of the message bits

a = 1:1:3;

SR(a) = 0; %shift register

C = [M SR];

for i = 1:1:l1

C = circshift(C,[1 1]); %shifting one bit from M to SR

SSR(i,:) = C(5:7);

end

SSR %shifted shift register

% Convolution encoder

for i = 1:1:l1

D = SSR(i,:);

e = D(1)+D(2)+D(3);

f = D(1)+D(3);

V(i,1) = mod(e,2);

V(i,2) = mod(f,2);

end

V %encoded signal