**Aim:To study waveform of delta modulation using MATLAB code.**

clc;

t=0:2\*pi/100:2\*pi;

x=5\*sin(2\*pi\*t/5);

plot(x)

hold on

y=[0];

xr=0;

del=0.4;

for i=1:length(x)-1

if xr(i)<=x(i)

d=1;

xr(i+1)=xr(i)+del;

else

d=0;

xr(i+1)=xr(i)-del;

end

y=[y d];

end

stairs(xr);

hold off

MSE=sum((x-xr).^2)/length(x)

y