**MatLab Codes**

%Question1

r=randn(1,100000)';

y2=filter(1, [1 -1 .5],r);

pacf(y2,25,1);

y3=filter(1, [1 -1 .25],r);

pacf(y3,25,1);

%Question2

pacf(data4q2(:,1),30,1);

pacf(data4q2(:,2),30,1);

pacf(data4q2(:,3),30,1);

%Question3

y =filter([0 0 0 5], [1 -.8],r);

z = iddata(y,r);

zd = detrend(z);

cra(zd,30);

%Question4

z = iddata(STHID(:,1), STHID(:,2));

zd = detrend(z);

y = cra(zd,250);

cra(zd,250)

yd = cumsum(y);

step(zd,50);