FS = 8000; % Sampling rate is 8000 samples per second.

FC = 300; % Carrier frequency in Hz.

t = [0:.1\*FS]'/FS; % Sampling times for .1 second

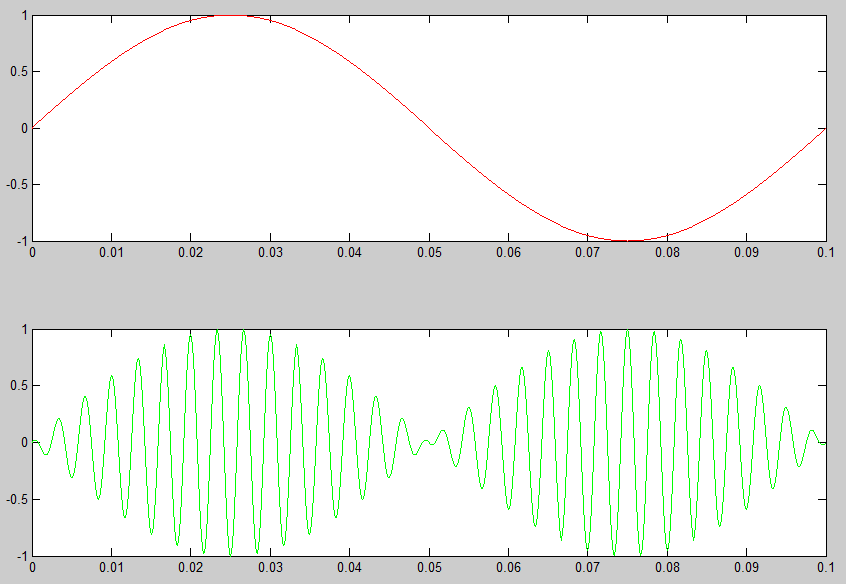
x = sin(20\*pi\*t); % Representation of the signal.

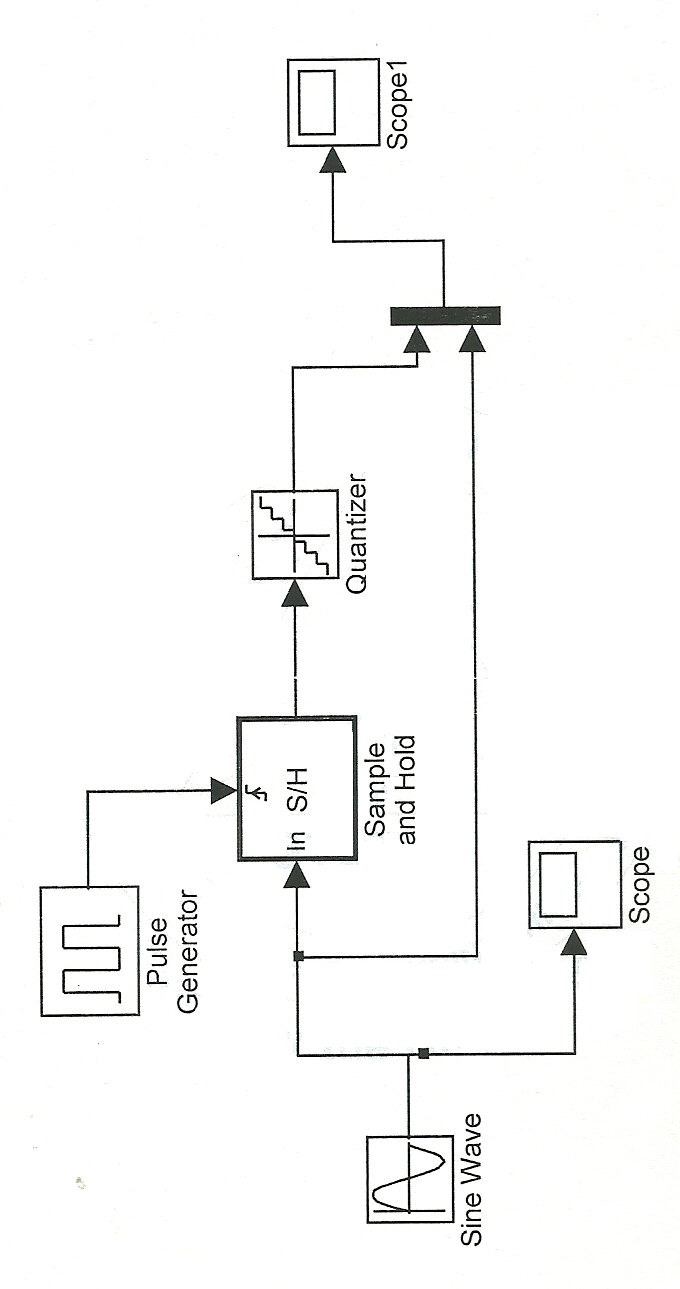
y = ammod(x,FC,FS); % Modulate x to produce y.

figure;

subplot(2,1,1); plot(t,x,'r'); % Plot x on top.

subplot(2,1,2); plot(t,y,'g'); % Plot y below.





vin = input(‘pi input the modulating voltage’);

vc = input(‘pi input the carrier voltage’);

fm = input(‘pi input the modulating frequency’);

fc = input(‘pi input the carrier frequency’);

t = 0:00.00001:0.09999;

vm = vin\*sin(2\*pi\*5\*t);

vcr = vc\*sin(2\*pi\*fc\*t);

mod\_ind = vin/vc;

subplot(3,1,1);

plot(t,vm);

subplot(3,1,2);

plot(t,vcr);

subplot(3,1,3);

vam = (vin\*sin(2\*pi\*fm\*t)).\*(sin(2\*pi\*fc\*t));

plot(t,vm);

