**EXPT NO. : SIMULATION OF AMPLITUDE SHIFT KEYING**

**DATE :**

**AIM:**

To implement ASK using MATLAB.

**SOFTWARE REQUIRED:**

MATLAB

**PROGRAM**

**AMPLITUDE SHIFT KEYING**

clc;

clear all;

close all;

fc=input('Enter the freq of Sine Wave carrier:');

fp=input('Enter the freq of Periodic Binary pulse (Message):');

amp=input('Enter the amplitude (For Carrier & Binary Pulse Message):');

t=0:0.001:1; % For setting the sampling interval

c=amp.\*sin(2\*pi\*fc\*t);% For Generating Carrier Sine wave

subplot(3,1,1) %For Plotting The Carrier wave

plot(t,c)

xlabel('Time')

ylabel('Amplitude')

title('Carrier Wave')

m=amp/2.\*square(2\*pi\*fp\*t)+(amp/2);%For Generating Square wave message

subplot(3,1,2) %For Plotting The Square Binary Pulse (Message)

plot(t,m)

xlabel('Time')

ylabel('Amplitude')

title('Binary Message Pulses')

w=c.\*m; % The Shift Keyed Wave

subplot(3,1,3) %For Plotting The Amplitude Shift Keyed Wave

plot(t,w)

xlabel('Time')

ylabel('Amplitude')

title('Amplitide Shift Keyed Signal')

INPUTS GIVEN TO GENERATE ASK MODULATED WAVE:

Enter the freq of Sine Wave carrier:100

Enter the freq of Periodic Binary pulse (Message):10

Enter the amplitude (For Both Carrier & Binary Pulse Message):4

**OUTPUT**

**RESULT**

Thus the generation of ASK was implemented using MATLAB.