NAME – ANKIT MISHRA

REG. – 20168047

BRANCH-INFORMATION TECHNOLOGY-1

**EXPERIMENT – 1(B)**

**OBJECTIVE:** Write a program in MATLAB to draw Amplitude Modulation waveform.

**PROGRAM:**

clc;

clear all;

close all;

a = input('Amplitude :');

fm= input('Message Frequency :');

fc = input ('Carrier Frequency :');

u = input('Modulating Index :');

t = 0:0.01:2\*pi;

m = a\*sin(2\*pi\*fm\*t);

c = a\*sin(2\*pi\*fc\*t);

y=a\*(1+u\*sin(2\*pi\*fm\*t)).\*sin(2\*pi\*fc\*t);

subplot(3,1,1);

plot(t,m);

xlabel('Time');

ylabel('Amplitude');

title('Message Signal');

subplot(3,1,2);

plot(t,c);

xlabel('Time');

ylabel('Amplitude');

title('Carrier Signal');

subplot(3,1,3);

plot(t,y);

xlabel('Time');

ylabel('Amplitude');

title('AM Wave');

**OBSERVATION:**

For the following waveform , we use

1. Message wave Frequency = 2.5 Hz
2. Carrier Wave Frequency = 10 Hz
3. Modulating Index = 0.5